



## FINAL REPORT

» Martin County

# Transit Development Plan

2014-2023 Major Update



# Acknowledgments



The **Martin County Transit Development Plan, 2014-2023** is the product of a comprehensive, collaborative effort among many individuals with the following organizations and the general public to establish the future vision and blueprint for Martin County public transportation system.

- » Martin County Board of County Commissioners
- » Martin Metropolitan Planning Organization (MPO) Board
- » Martin MPO Citizens and Technical Advisory Committees
- » Martin MPO Bicycle Pedestrian Advisory Committee
- » Martin Local Coordinating Board for the Transportation Disadvantaged
- » Martin County
- » City of Stuart
- » Town of Sewall’s Point
- » Town of Ocean Breeze Park
- » Town of Jupiter Island
- » Stuart/Martin County Chamber of Commerce
- » CareerSource Research Coast
- » Florida Department of Transportation District IV





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# Executive Summary

The Martin County Transit Development Plan (2014-2023) embodies the strategic blueprint for public transportation in Martin County for the next ten years. This Transit Development Plan (TDP) conforms to the requirements of Rule Chapter 14-73, Florida Administrative Code (F.A.C.) – which allows jurisdictions to be eligible for Florida public transportation block grants - and is consistent with the FDOT Five-Year Work Program for public transportation in Martin County as well as approved local government comprehensive plans and the Martin County Long Range Transportation Plan 2035. The TDP and its findings have been based on a series of technical analyses and public involvement efforts conducted between August 2013 and July 2014.

## TECHNICAL FINDINGS

Technical analyses included documentation of current and future (i.e., through the year 2023) population, employment and land development, assessment of current transit services and needs, comparison of Martin County transit services with peer transit programs, and the financial requirements to continue to provide current transit services as well as increased service. Some of the major technical findings include:

- » Martin County’s population and employment are expected to grow by 20,000 residents and 11,200 new jobs between 2014 and 2023.
- » Transit ridership has tripled in the last three years (67,000 passengers in 2013), and is projected to increase at a rate of 3%/year over the next ten years.
- » Operating costs per revenue hour have decreased slightly in the past two years.
- » Because of the low density character of Martin County, transit ridership is lower than that of any of the seven peer agencies it was compared to. Martin County also has the highest operating cost/passenger and highest operating cost/revenue hour of the seven peer systems.

## PUBLIC INVOLVEMENT

The review of the technical findings was completed with elected leaders, stakeholders and the general public through a variety of public involvement events and activities including: three public workshops (in Stuart, Hobe Sound and Indiantown in December 2013), fourteen stakeholder interviews including interviews with Martin County Commissioners, local jurisdiction elected leaders, Indian River State College, Stuart Chamber of Commerce, and

others in January-February 2014, and surveys issued to transit riders and non-riders alike (December – March 2014) , and meetings with a project Steering Committee, the Martin County MPO advisory committees, and the Board of County Commissioners. These events resulted in goals and objectives for the TDP and a number of specific improvements, such as:

- » Expand span of service on weekdays beyond 6PM (to 7PM and/or 9PM), and add weekend service.
- » Increase frequency of bus routes from every 60 minutes to every 30 and/or 45 minutes.
- » Add three new routes (to Palm City, Hutchinson Island, and connection to the Treasure Coast Express Route via US 1).
- » Create a branding and promotion campaign for the transit system and its services.
- » Modify the bus fare structure (e.g., discounted rides for seniors, students and veterans).
- » Improvements at bus stops.
- » Creating a transit hub in Stuart.
- » Creating a transit hub and spoke system in Martin County.

## FUTURE SCENARIOS

Unlike the Long Range Transportation Plan (LRTP), the TDP is not required to be a cost-feasible plan; however, Martin County is interested in understanding the costs of not only maintaining existing services over the next ten years but the costs of providing expanded services with corresponding equipment and facilities as well. In total, the following six distinct alternatives were developed and analyzed against the goals, objectives and performance criteria:

- » **Weekday Service Expansion - Alternative B:** Extend service day to 9:00PM on all three existing routes.
- » **Weekend Service:** Introduce Saturday and Sunday service between 8AM and 5PM on all three existing routes.
- » **Hub and Spoke System/New Routes:** Add new routes between Stuart and Palm City, Stuart and Hutchinson Island, and extend the Treasure Coast Connector south along US 1 to Palm Beach.
- » **Status Quo Alternative:** No Change from Existing Service.
- » **More Frequent Bus Service:** Would run more frequent buses on all three existing routes.
- » **Weekday Service Expansion - Alternative A:** Extend service day to 7:00PM on all three existing routes.

A comparison of the ridership and passenger trips/hour of these Year 2023 alternatives and the Year 2013 service is shown in Table ES-1 below.

Table ES-1: Annual Ridership and Passenger Trips/Revenue Hour – Year 2013

	Annual Ridership Year 2013	Passenger Trips/ Revenue Hour Year 2013
Existing Service	33,800	3.4
Alternatives	Annual Ridership Year 2023	Passenger Trips/ Revenue Hour Year 2023
Status Quo	46,800	5.1
More Frequent Bus Service	74,100	5.3
Weekday Service Expansion Alt A	48,600	4.7
Weekday Service Expansion Alt B	51,900	4.2
Weekend Service Expansion	58,500	4.5
Hub & Spoke System/Three New Routes	145,200	6.4





Based on the above analyses, three scenarios were advanced into financial analyses:

- » **Current Trend Scenario (i.e., Status Quo Alternative):**  
Includes existing services plus low cost capital projects such as bus stop improvements, marketing plan and branding, expansion of the park-and-ride facility at Florida’s Turnpike (Mile Marker 133), transit pass holder program, fleet replacement, and continue to operate Treasure Coast Express regional bus service.
- » **Alternative Scenario (i.e., More Frequent Bus Service):**  
Includes the elements of the Current Trend Scenario

above as well as increased service frequency on existing routes (which would require additional buses), construction of an Administration and Operations Center which would include fleet parking and a bus washing station, addition of four new park-and-ride facilities, and new operations and scheduling software.

» **Aggressive Scenario (i.e., Hub Spoke System/Three New Routes):** Includes the elements of the Alternative Scenario above and would establish service on three new routes – Stuart-Palm City loop, Stuart to Hutchinson Island loop, and a connection to the Treasure Coast Express Route via US 1.

FINANCIAL ANALYSIS

Operating Costs

Operating cost categories for the Martin County Public Transportation system includes staff salaries, fuel and maintenance of vehicles and other equipment, insurance, office space, utilities, administration, materials, supplies, etc. As shown in Table ES-2 below, the projected aggregate revenues for transit operations for the three scenarios range between \$13.6 million and \$14.7 million, while their operating costs range between \$16.1 million and \$24.2 million between the years 2014 and 2023 combined; resulting in a combined 10-year deficit of \$2.5 million for the Current Trends Scenario, \$5.4 million for the Alternative Scenario, and \$9.5 million for the Aggressive scenario.

These deficits are the result of the increased services represented in the future scenarios combined with inflation and maintaining the current revenue stream from the local, state, and federal sources. This deficit could be reduced or eliminated with an increase in the general fund allocation for transit and/or through a proposed MSTU dedicated to transit.

Capital Costs

The capital costs associated with providing Martin County Public Transportation services includes purchase of new vehicles, equipment, bus stops and other facilities, etc. As shown in Table ES-2, the projected total ten-year revenues

for capital is \$3.1 million, while the capital costs are estimated to range between \$4.5 million and \$13.0 million; resulting in a combined 10-year deficit of \$1.4 million for the Current Trends Scenario, \$11.1 million for the Alternative Scenario, and \$9.9 million for the Aggressive Scenario. Local funding sources available to fill these gaps include increase in the general fund allocation for transit

and/or through a proposed MSTU dedicated to transit. Other funding options could be establishment of tax increment financing districts, bond sales or increased sales tax revenues, while state and federal sources includes State and Federal Infrastructure Bank loans, state block grants, FDOT flexible funds, and FTA grant programs.

RECOMMENDED TRANSIT DEVELOPMENT PLAN

The recommended Transit Development Plan is a primarily based on the Current Trend Scenario with other improvements for consideration if revenues become available. A schedule for implementation of the recommended TDP elements are shown below in Table ES-3 and reflect both their priority as well as appropriate staging of Plan improvements. Over the 10-year plan period, the Martin County Public Transit (MCPT) has an approximately \$1.4 million capital budget deficit and about a \$2.5 million operating budget deficit.

Table ES-2: Capital and Operating Budgets, 2014-2023 (YOE dollars)

Budget	Current Trend Scenario	Alternative Scenario	Aggressive Scenario
Operating Revenue	\$13.6 M	\$ 13.7 M	\$ 14.7 M
Operating Expense	\$ 16.1 M	\$ 19.3 M	\$ 24.2 M
Operating Budget Deficit	(\$ 2.5 M)	(\$ 5.4 M)	(\$ 9.5 M)
Capital Revenue	\$ 3.1 M	\$ 3.1 M	\$ 3.1 M
Capital Expense	\$ 4.5 M	\$ 11.8 M	\$ 13.0 M
Capital Budget Deficit	(\$ 1.4 M )	(\$ 11.1 M)	(\$ 9.9 M)

Table ES-3: Recommended Transit Development Plan Years 2014 - 2023

Year	Description
2014-2023	Continue to maintain and operate existing bus service
2014-2020	» Bus stop improvements (shelters, ADA upgrades, new shelters bike racks) » New regional bus service - Treasure Coast Express (90 minute headway) » Fleet Replacement
2015-2016	Marketing Plan and Branding
2019-2020	Transit pass holder program (six electronic kiosks)
2021	Expansion of the park-and-ride facility at Florida’s Turnpike (Mile Marker 133)
Long-term Improvements	» Increase frequency on Indiantown route (45 minute headway) » Increase frequency on Treasure Coast Connector (TCC) (30 minute headway) » Increase frequency on Stuart route (80 minute headway) » New cross-town Palm City bus route to serve the residents and business (30 minute headway) » New Hutchinson Island bus route to serve the beaches and key tourist destinations (45 minute headway) » Administration and operations center; Fleet parking and wash station; Eight (8) new buses; » Fixed route scheduling software and APC soft ware; Three (3) new P&R lots



# Chapter One

## Introduction

A Transit Development Plan (TDP) is a Florida Department of Transportation (FDOT) required, 10-year horizon plan intended to support the development of an effective multi-modal transportation system for the State of Florida and is governed by Sections 339.135, and 339.155, Florida Statutes, as described in Chapter 14-73 of the Florida Administrative Code: Rule 14-73.001. The TDP serves as the basis for defining public transit needs which is a prerequisite to receipt of state funds. The rule requires that the TDP be the provider’s planning, development, and operational guidance document. Although a FDOT requirement, the TDP has value as the comprehensive and logical basis for exploring near and mid-term public transit needs and opportunities.

Martin County’s 2014-2023 TDP serves as both a blueprint for the operational and capital resources required to meet future transit needs, and a strategic vision plan developed with the general public and elected leaders for how transit service can help shape the transportation system. Transit Development Plans are required by Florida statute to be updated annually, with a major update every five years. The last Major Update of the TDP in 2009 was a combined TDP for Martin County and St. Lucie County. This plan document represents the most recent (Year 2014) Major Update of the TDP for Martin County.

This chapter describes the current federal, state, and regional/local policies, programs and plans that provide direction for the TDP as well as the need for consistency with laws, practices and projects that have a direct relationship to the TDP.

### This plan document is organized as follows:

- Chapter 1 – Introduction;** an overview of the current federal, state, and regional/local policies, programs and plans that provide direction for the TDP.

**Chapter 2 – Baseline Conditions;** a summary of the existing conditions and demographic characteristics within the transit service area.

**Chapter 3 – Transit Service Performance Evaluation** includes a description of the existing transit service in Martin County and discusses trends for MCPT’s performance over the past two years as well as with selected peer group.
- Chapter 4 – Public Involvement;** a summary of the public outreach effort conducted over the course of the planning process.

**Chapter 5 – Transit Demand and Needs Assessment** includes a synopsis of the technical analyses and public outreach effort that provided the foundation for this assessment.

**Chapter 6 – Martin County Public Transit Vision** describes of the vision and explains the process used to establish the goals and objectives for the Martin County TDP.

**Chapter 7 – Development and Evaluation of Alternatives** describes all the different alternatives
- considered, explains the evaluation methodology and summarizes the results.

**Chapter 8 – Financial Analysis;** discusses the capital and service improvements identified for the Martin County Public Transit including cost estimates and comparison of three scenarios corresponding to different levels of transit investment relative to the capital and service improvement plans.

**Chapter 9 – Plan Recommendations;** documents the implementation plan over the 10-year plan period.

## 1.1 FEDERAL PLANS AND POLICIES

### Moving Ahead for Progress in the 21st Century (MAP-21), July 2012

The surface transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21) that went into effect in July 2012, focuses on a performance and outcome-based approach. In general, MAP-21 consolidates several funding programs, eliminates discretionary funding programs and earmarks, and converts programs under formula funds. Further, it sets performance measures to achieve national goals that need to reflect in the state and local long range transportation plans as well require agencies to monitor progress.

With regard to transit funding, MAP-21 modified, repealed, consolidated, and created some new programs. Below are the key changes that may affect Martin County Public Transit:

- » The Job Access and Reverse Commute (JARC) program was eliminated and instead became eligible for funding under the Urban Area Formula Program (5307) & Rural Area Formula Program (5311).
- » Urban Area Formula Program (5307) funds (50% to 75%) can now be used for funding transit operations in areas with populations over 200,000 that have less than 100 buses (75% if 76 to 100 buses & 50% if 75 buses or less).
- » Enhanced Mobility of Seniors & Individuals with Disabilities (5310) program replaces the New Freedom Program (5317). Under 5310, the Federal Transit Administration (FTA) will directly fund urbanized areas with populations over 200,000, but the Florida Department of Transportation (FDOT) will administer 20% of the funds going to small urbanized areas (50,000 to 200,000 people). Award of these funds will require extensive coordination between designated Community Transit Coordinators (CTC), urban area recipients, and FDOT.
- » Bus and Bus Facilities Program (5339) - One time capital needs can be obtained using flexible funds (FHWA and FTA) or State Infrastructure Bank (SIB) loans.

### Environmental Justice (EJ) and Title VI Circulars, August and October 2012

The most recent environmental justice and Title VI circulars issued by U.S. Department of Transportation (USDOT) and FTA became effective in August 2012 and October 2012, respectively. The FTA circular separates its guidance on environmental justice (EJ) from Title VI of the Civil Rights Act and seeks to clarify the distinction between the two. The circular provides in-depth information on conducting an EJ analysis, conducting meaningful participation and engagement activities, and integrating EJ principles into planning and service delivery and the NEPA process.

Below are key implications for Martin County Public Transit:

- » Conduct analysis to evaluate impact on Title VI populations when making a major service change including increasing fares.
- » Ensure EJ populations are represented in the public engagement process.

### Clean Air Act 1990 – Conformity with National Ambient Air Quality Standards (NAAQS)

Martin County is currently designated as an attainment region for the 1997 8-hour ozone standard of 0.084 parts per million (ppm), and has an approved attainment and maintenance plan for the 1-hour ozone standard. The Environmental Protection Agency (EPA) has made a few attempts to strengthen the ozone standard in the recent past; however, the proposed revised ozone standards are being debated as of this writing. Promoting use of biking, walking, transit, and transportation demand management strategies, such as, carpool and vanpool will continue help Martin County comply with NAAQS.





Partnership for Sustainable Communities, June 2009

“On June 16, 2009, the U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) joined together to help communities nationwide improve access to affordable housing, increase transportation options, and lower

transportation costs while protecting the environment” ([www.sustainablecommunities.gov](http://www.sustainablecommunities.gov)). The partnership agencies incorporate six livability principles into federal funding programs and policies. One of the six livability principles is providing more transportation choice, which includes transit. Key implication for Martin County Public Transit is to be cognizant of new funding opportunities so that the agency can be positioned to take advantage of and new revenue streams through federal programs.

1.2 STATE PLANS AND POLICIES

2060 Florida Transportation Plan, Florida Department of Transportation, December, 2010

The Florida Transportation Plan is a major policy document that stresses how to accommodate growing personal and commercial travel needs in the context of economic development, environmental quality, community place-making, reliable, safe and efficiency performance measures. These policies are matched with implementing actions focused on decision-making, funding, and monitoring. While the Plan does not provide specific suggestions for public transportation services for Martin County, it describes how the state will partner with local jurisdictions and how its approach its role to investments in public transportation.

For example, the Plan:

- » Provides for designing transportation projects to be compatible and consistent with community visions to enhance community livability.
- » Increases access to and use of alternatives to single-occupant vehicles.
- » Provides for smooth and efficient transfers between transportation modes and facilities.
- » Provides modal alternatives, criteria for new hubs and corridors, and regional coordination.
- » Provides for developing multimodal systems, expanding transportation choices, and reducing travel by single occupant vehicles.

- » Provides State, local and private sector incentives to encourage joint funding of transportation projects.

2010 Strategic Intermodal System Strategic Plan (Draft), Florida Department of Transportation, November 24, 2009

This Plan defines the Strategic Intermodal System (SIS) as a statewide network of high-priority transportation facilities, including commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways, and highways. The SIS Strategic Plan sets policies to guide decisions about which facilities are designated as part of the Strategic Intermodal System, where future Strategic Intermodal System investments should occur, and how to set priorities among these investments given limited funding. With regard to public transportation systems and services, the Plan identifies the following FDOT roles:

- » Expands modal alternatives to Strategic Intermodal System highways for travel and transport between regions, states, and nations.
- » Provides for safe and efficient transfers for both people and freight between all transportation modes.
- » Reduces growth rate in vehicle-miles traveled and associated energy consumption and greenhouse gas emissions.

Florida’s New Starts Transit Program: A Decision-Support Contextual Framework, June 2006

This document describes the intent of the Florida New Starts Transit Program (NSTP) and its contextual framework as a decision-support program. The program encourages greater consideration of policy coordination and compliance and project technical merits into the State transit project funding allocation decision-making process, and is consistent with relevant Florida Statutes, policies and initiatives such as the SB 360 Growth Management Act, the Strategic Intermodal System, and the Florida Transportation Plan.

The SB 360 introduced the New Starts Transit Program (NSTP) and the Transportation Regional Incentive Program (TRIP). The primary purpose of the NSTP is to provide funding support to build the transportation infrastructure required to move Florida into the future. The TRIP program was created to encourage and fund regionally significant transportation investments. These programs were added to the existing Small County Outreach Program, the Strategic Intermodal System, the State Infrastructure Bank program and the County Incentive Grant Program. These programs are briefly described below:

**County Incentive Grant Program** - The County Incentive Grant Program (CIGP) provides up to 50% grants to counties for the construction of transportation facilities and services, including transit, to relieve congestion on the State Highway System.

**State Infrastructure Bank** - State Infrastructure Bank (SIB) is a program of revolving low interest loans and credit enhancement programs to assist projects eligible under the TRIP and other programs. The SIB is funded in FY2006 with \$100 million.

**Transportation Regional Incentive Program** - The Transportation Regional Incentive Program (TRIP), created as part of SB360, the Growth Management Act, provides

50% matching grants to improve regionally significant facilities in regional transportation areas. Regional transportation areas are defined by law as:

- » Two or more contiguous Metropolitan Planning Organizations (MPO’s);
- » One or more MPO’s or counties;
- » Multi-county regional transportation authority;
- » Two or more contiguous counties not members of an MPO; and
- » MPO’s comprised of three or more counties.

**Florida New Starts Program** - The Florida New Starts Program (NSTP) provides transit agencies with up to a dollar for dollar match of the local (non-federal) share of project costs for transit fixed-guideway projects and facilities that qualify under the FTA New Starts Program. The definition of eligibility includes rail transit and bus rapid transit (BRT) systems. This program also allows a dollar for dollar match of local funds towards project costs for projects funded with state and local funds only.

Development of the proposed NSTP decision-support program is consistent with the intent of SB 360 legislation and its related infrastructure and growth management programs. A significant means to accomplish growth and mobility goals is to position Florida transit projects competitively relative to other projects nationally. The department strategy is to capture federal transit funding for expensive projects. To do this the Department proposes to enhance the transit project development and funding allocation decision-making process to target state and local investments in the best projects for our communities. The intended results will be to increase the success of capturing federal funds for expensive projects to defray project costs and to strategically invest state and local funds to advance less expensive projects of a state and regional significance without federal support.





### 1.3 REGIONAL AND LOCAL PLANS AND POLICIES

#### Port St. Lucie Urbanized Area Transit Development Plan Serving the Counties of Martin and St. Lucie Florida 2010-2019, October 2009

While Martin and St. Lucie counties were classified as separate urbanized areas prior to the 2000 U.S. Census, a new urbanized area - Port St. Lucie Urbanized Area – was designated by the U.S. Census in 2002, which extended from Indrio Road in Fort Pierce to Bridge Road in Hobe Sound and is bound on the west side by I-95. This is why the two counties were combined for the last TDP; however, many needs and service types were reported separately for Martin County.

It is difficult to summarize how the 2010-2019 TDP characterized transit system needs because the analysis covered over 50 separate variables which were compared to eight peer systems. In some categories – such as, ridership, average passenger trip length, revenue hours per employee FTE, and operating expense/trip - the combined St. Lucie/ Martin County area performed at or above the mean levels of the eight peer systems; but for most of the categories (including age of fleet, vehicles operated in maximum service, total revenue hours, and most operating expense topics) the area performed at levels below that of its peers. The results of this analysis and the vision plan that was developed for the TDP resulted in a set of goals and action plans such as:

- » “Increase local support for fixed-route transit services by 100 percent by 2019 to support increases in ridership.”
- » “Employ transportation demand management strategies that advance the distribution and/or presentation of commuter services program and transit service benefits to the largest employers each year through the 2019 TDP planning horizon.”
- » “Conduct activities that will support local jurisdictions adopt transit supportive comprehensive plan amendments.”
- » “Maintain an annual operating cost per passenger trip of less than \$8.00 (the 2009 peer mean).”

- » “Operate a fleet of vehicles with an average age of less than seven years by 2015.”
- » “Develop a Bus Stop Infrastructure Plan by 2012.”
- » “Increase the number of fixed-route passenger trips by 50% between FY 2010 and FY 2019.”
- » “Increase the number of inter-county bus routes from one to three by 2019.”
- » “Add at least one vanpool to the commuter services program each year through the 2019 TDP planning horizon.”

To meet the TDP’s goals and objectives, the capital and operating financial plan required more than double the amount of the actual available revenues.

#### Enhancing Mobility: Martin ~ St. Lucie 2035 Martin County Regional Long Range Transportation Plan, February 2011

This Long Range Transportation Plan (LRTP) met federal and state requirements and guidelines and served as a basis for developing the Martin County Transportation Improvement Plan (TIP) of requested funds for multimodal improvements including transit. When this LRTP was prepared Martin County’s geography fell into the 2000 U.S. Census Port St. Lucie Urbanized Area (UZA), and to ensure that the UZA had a coordinated strategy, the Florida Department of Transportation (FDOT) encouraged the two MPOs to partner and develop a Regional Long Range Transportation Plan (RLRTP).

The findings and recommendations of the Regional LRTP were based on an Infill Alternative Plan for land use development for both Martin and St. Lucie counties. The Infill Plan seeks to develop land uses within established areas rather than push new development to undeveloped areas, which can result in reducing the length of trips and providing for reasonable transit, bicycle and walking options for daily trip making. The LRTP reported that the Infill Alternative Plan would reduce vehicle miles of travel, vehicle hours of travel and greenhouse gas production by 3.35%, 7.67% and 3.35%, respectively, over historical trend rates.

#### Transportation Disadvantaged” populations are defined as:

*“Those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life sustaining activities, or children who are handicapped or high-risk or at-risk as defined in s.411.202.*

-- Florida Statutes” (Chapter 427, Florida Statutes)

Given the goals for the LRTP, and the projected growth and travel in the region, the LRTP projected a 20-year need for \$740 million in improvements/projects, including multiple transit service and facility improvements described in the U.S. 1 Corridor Retrofit Project (see below).Martin County 2013-2018 Transportation Disadvantaged Service Plan, October 7, 2013

The Martin County Transportation Disadvantaged Service Plan (TDSP) provides a needs assessment for transportation services “transportation disadvantaged” populations.

Among its peers (Indian River, Hernando, Lake, and St. Lucie Counties), Martin County has the lowest percentage of households without access to a private vehicle, as well as the lowest number of trips, vehicle and revenue miles, and correspondingly lowest operating costs for transportation disadvantaged services.

In Martin County, Medical Transportation Management, Inc. is the designated Community Transportation Coordinator (through 2018) with responsibility for client registration, eligibility verification, trip reservation and scheduling, maintaining transportation contractor agreements, and documentation of operations, etc.

According to the TDSP, nearly 46% of Martin County’s population (or 65,397 individuals) met the definition of “transportation disadvantaged,” which will grow to 73,567 individuals (same 46% of total population) by the year 2021. Of these, the Plan forecasts that demand for transit service for the transportation disadvantaged is over 1,000 person trips/day.

To meet existing and future demands, the Plan establishes new service standards and policies, fare structures, consolidation of other public transportation modes, and service hours.

The following goals and objectives for the Transportation Disadvantaged Service Plan were established to address needs and were proposed to be completed within 12 months of the approved Transportation Disadvantaged Service Plan:

- » **Goal 1:** Deliver reliable and efficient Transportation Disadvantaged services to Martin County residents
- » **Goal 2:** Enhance the availability of transportation services in Martin County to meet the mobility needs of its constituents.
- » **Goal 3:** Encourage innovative ways to enhance the Transportation Disadvantaged system in Martin County.
- » **Goal 4:** Continued improvement in meeting and exceeding established performance measures.

#### Martin Metropolitan Planning Organization Transportation Improvement Program FY 2013/14-FY 2017/18, adopted June 17, 2013

The Transportation Improvement Program (TIP) documents and prioritizes over \$70 million in improvements over five years and includes \$11.5 million for transit as follows:

- » Operating Assistance - \$3.9 million
- » Planning - \$300,000
- » Capital - \$7.3 million

#### Park-And-Ride Inventory Utilization Report, FDOT District Four, May 2013

The report provides an inventory of all the 37 park-and-ride lots within District Four on biannual basis per state guidelines. The inventory includes utilization rates, assessment of adequacy of signage, maintenance needs, and



ownership and maintenance agreements, which was based on inspections conducted on weekdays (Tuesday, Wednesday, or Thursday) in May 2013. Per this report there are five existing park-and-ride lots in Martin County. Three park-and-ride lots are in downtown Stuart (Kiwaniis, Sailfish Circle, and Osceola Park-and-Ride) that are served by Martin County Public Transit (MCPT) fixed route bus service. The Martin Highway and Turnpike Mile 133 Park-and-Ride and Halpatiokee Regional Park-and-Ride are for carpools. The utilization rates at the park-and-ride lots vary from two (2) percent at Halpatiokee Regional Park-and-Ride lot to 100 percent at Osceola Park-and-Ride lot. Overall, there are 280 parking spaces with an aggregate utilization rate of 35 percent.

**FDOT District Four: Regional Transit and Specialized Transportation Efficiency Study, March 2008**

This study evaluated the transportation disadvantaged demand response programs, paratransit services, and public demand response transportation programs in Indian River, St. Lucie, Martin, and Palm Beach counties as well as the existing and potential regional connections and coordination between the counties’ demand-response and fixed-route transit services. The effort also resulted in the identification of existing and emerging regional transit markets development of tools and methods for transitioning paratransit trips to fixed route bus services.

For Martin County, the following recommendations were made:

**Service Improvement**

- » Target paratransit service demand with fixed-route bus service
- » Increase transit level of service
- » Implement new or expanded bus service to traditional markets
- » Implement new or expanded bus service to discretionary markets
- » Implement new or expanded bus service to high activity paratransit trip destinations
- » Consider implementing flex-route or deviated fixed-route services to outlying areas

**Policy/Program Improvement**

- » Implement regional transit authority for Martin and St. Lucie counties
- » Coordinate scheduling software training
- » Coordinate with high activity medical facilities and doctors to optimize the scheduling of appointments

**Martin/St. Lucie County Transit Funding and Governance Study, November 2007**

This study compared four service and funding options and five governance alternatives for transit services in both St. Lucie and Martin counties. After estimating costs associated with desired service levels (for both fixed and demand-response services) and matching them to available funding programs, a range of “governance” alternatives (e.g., improved coordination of services between the two counties) were evaluated. A process was proposed to establish governance and funding processes for each type of service and service area that could be considered.

**Martin MPO Park and Ride Report, May 2007**

Based on original field surveys, commute patterns, journey-to-work and other data, and guidance from the FDOT State Park-and-Ride Lot Program Planning Manual, this study identified six potential new sites (that is, in addition to the four sites in place) for park and ride lots and estimated the potential utilization of those park and ride sites. The study made the recommendations list below. However, it should be noted that some of the recommendations may have been implemented in the past six years and some may not be relevant given the changes made to express bus services more recently.

- » Pursue implementation of a park-and-ride lot in the vicinity of the I-95 and Kanner Highway (S.R. 76) interchange.
- » Expand the existing park-and-ride lot located at the Florida’s Turnpike interchange at Martin Downs Boulevard.
- » Pursue implementation of a park-and-ride lot in the vicinity of the I-95 and High Meadows Avenue (C.R. 713) interchange.

- » Provide signage along U.S. 1 for the Downtown Stuart park-and-ride lots.
- » Pursue implementation of a park-and-ride lot along Warfield Avenue in Indiantown.
- » Study the implementation of an express bus route from Martin County to employment centers in Palm Beach County that would serve park-and-ride lots along I-95 and/or Florida’s Turnpike.
- » Provide a park-and-ride lot at the future Tri-Rail station if commuter rail service is extended to Martin County.
- » Link fixed-route transit routes to existing and future park-and-ride lots and provide transit infrastructure within the park-and-ride lots.
- » Provide easy access and good visibility to park-and-ride lots from roadways.
- » Maintain aesthetics of existing and future park-and-ride lots including landscaping.
- » Provide guidance signage from major commuting roadways to existing and future park-and-ride lots.

**The US 1 Corridor Retrofit Project, 2011**

This proposed project, which would run the entire length of Martin and St. Lucie counties, includes high capacity transit improvements and transit oriented redevelopment along US 1 that were intended to provide mobility and connectivity throughout the region in balance with future roadway expansion. The total price tag for the project was estimated to be \$39 million over 20 years, and includes the following transit service and system elements:

- » Transit-supportive redevelopment in the corridor
- » Rapid bus transit along US 1
- » Branded buses and stations
- » Bus priority treatments including transit signal priority and bus queue jumper lanes at key intersection bottlenecks
- » Context sensitive design solutions that encourage transit accessibility and walkability
- » Regional and inter-city passenger rail service in the parallel FEC Railroad

For the implementation of the US 1 Corridor Retrofit Project; FDOT District Four, St. Lucie TPO and Martin MPO have jointly funded the US 1 Multimodal Corridor Study, which currently underway.





# Chapter Two

## Baseline Conditions

This chapter summarizes existing conditions and demographic characteristics within the transit service area. The situation appraisal establishes the context, or baseline conditions, for the delivery of transit services in Martin County and provides background information needed to help understand Martin County’s transit service operating environment. A service area description, demographic characteristics, land use information, commuting patterns data, and roadway conditions are presented. Information and data presented reflect the most recent data available as of February 2014.

### 2.1 REGIONAL SETTING

Martin County is located in South Florida and is bordered on the north by St. Lucie County, on the south by Palm Beach County, on the west by Okeechobee County, and on the east by the Atlantic Ocean. Very little of the county is incorporated as there are only four municipalities. Among these incorporated municipalities, the largest city, Stuart,

has over 15,000 residents and is located in the northeastern quadrant of the county. The most populated place within the county is unincorporated Palm City, with a population of over 23,000. Figure 2-1 presents a physical representation of the county, its municipal areas, and the existing transportation and transit network.

### 2.2 POPULATION PROFILE AND DEMOGRAPHIC CHARACTERISTICS

According to the 2007-2011 American Community Survey (ACS) 5-year estimates, the total population of Martin County was 126,731 in 2000. There are four incorporated municipalities - City of Stuart, Sewall’s Point, Jupiter Island, and Ocean Breeze Park in Martin County (Figure 2-1). Cities with a population of more than 1,000 in 2011 include Sewall’s Point and Stuart. Table 2-1 shows the population levels for Martin County and Florida. The county population increased from 126,731 in 2000 to 145,480 in 2011, a growth of 14.8 percent over the 11-year period. Of note is that this growth is at a slower rate than that of the population growth of Florida. A similar trend is true for growth in the number of households. Although Martin County’s and Florida’s

youth population (18 years of age and under) is on the decline, the proportion of elderly population (65 years of age and over) compared to the total Martin County population in 2011 is much higher when compared to that for Florida. Table 2-2 presents the population and population change between 1990, 2000, and 2011 for municipalities and Census Designated Places in Martin County, while Figure 2-2 illustrates the 2010 population density by census block group. Palm City, Indiantown, and Stuart experienced the top three population changes between 1990 and 2011, with 497 percent, 35 percent, and 31 percent, respectively. From 1990 to 2011, the population growth rate of incorporated municipalities exhibits a slower increase than the population

Figure 2-1: Existing Transportation and Transit Network, Martin County

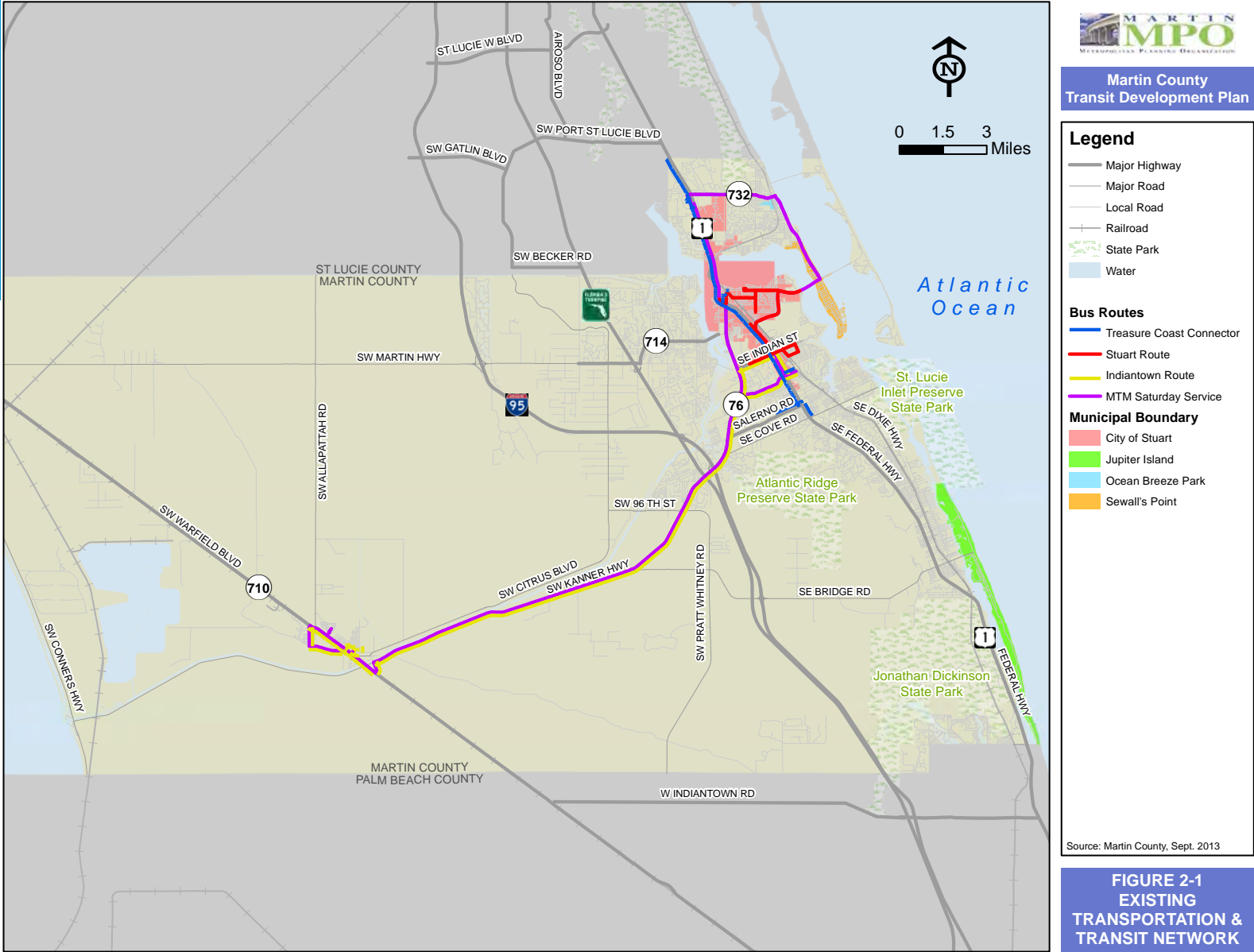


Table 2-1: Demographic Characteristics

Population Data	2000		2011		% Change (2000-2011)	
	Martin County	Florida	Martin County	Florida	Martin County	Florida
Population	126,731	15,982,378	145,480	18,688,787	14.79%	16.93%
Persons under 18 years, percent	18.64%	22.81%	17.80%	20.70%	-4.51%	-9.25%
Persons 65 years and over, percent	28.24%	17.57%	27.10%	18.20%	-4.04%	3.59%
Land area in square miles	543.46	53,624.76	543.46	53,624.76	0.00%	0.00%
Persons per square mile	233.2	298.04	267.7	348.5	14.79%	16.93%
Households	55,288	6,337,929	59,316	7,140,096	7.29%	12.66%
Persons per household	2.2	2.5	2.5	2.6	13.64%	4.00%

Source: 2000 US Census & 2007-2011 American Community Survey 5-Year Estimates





growth rate of the unincorporated areas, with Palm City’s population booming over the past two decades.

Minority Population

Table 2-3 displays the percent distribution of minority populations within Martin County compared to Florida. The proportion of Martin County’s non-minority population, approximately 81 percent, is greater than that of Florida. Conversely, Martin County’s proportion of minority population is significantly less than that of Florida.

As illustrated in Figure 2-3, the heaviest concentrations of minorities occur in the City of Stuart and Indiantown.

Age Distribution

Young people and older adults are more likely to use public transportation. These populations include youth age 15 and younger who cannot legally operate a motor vehicle and, therefore, typically have a higher propensity for using transit, as well as older adults, who often are no longer able to drive due to impairments from aging.

Table 2-2: Population Trends for Cities, Towns & Unincorporated Areas within Martin County

Municipality (M) or Census Designated Place (CDP)	1990	2000	2011	% Change (1990-2000)	% Change (2000-2011)	% Change (1990-2011)
Hobe Sound (CDP)	11,507	11,376	11,747	-1.14%	3.26%	2.09%
Indiantown (CDP)	4,794	5,588	6,489	16.56%	16.12%	35.36%
Jensen Beach (CDP)	9,884	11,100	12,668	12.30%	14.13%	28.17%
Jupiter Island (M)	549	620	504	12.93%	-18.71%	-8.20%
North River Shores (CDP)	3,250	3,101	3,394	-4.58%	9.45%	4.43%
Ocean Breeze Park (M)	519	463	392	-10.79%	-15.33%	-24.47%
Palm City (CDP)	3,925	20,097	23,414	412.03%	16.50%	496.54%
Port Salerno (CDP)	7,786	10,141	10,174	30.25%	0.33%	30.67%
Rio (CDP)	1,054	1,028	815	-2.47%	-20.72%	-22.68%
Sewall’s Point (M)	1,588	1,946	1,882	22.54%	-3.29%	18.51%
Stuart (M)	11,936	14,633	15,644	22.60%	6.91%	31.07%
Unincorporated	42,200	62,431	68,701	47.94%	10.04%	62.80%
Incorporated	14,592	17,662	18,422	21.04%	4.30%	26.25%

Source: 1990 Census Gazetteer File; 2000 US Census; 2007-2011 American Community Survey 5-Year Estimates

Table 2-3: Minority and Non-Minority Population within Martin County

Geographic Location	Minority Population	% of Total Population	Non-Minority Population	% of Total Population
Martin County	28,106	19.32%	117,380	80.68%
Florida	7,770,798	41.58%	10,917,419	58.42%

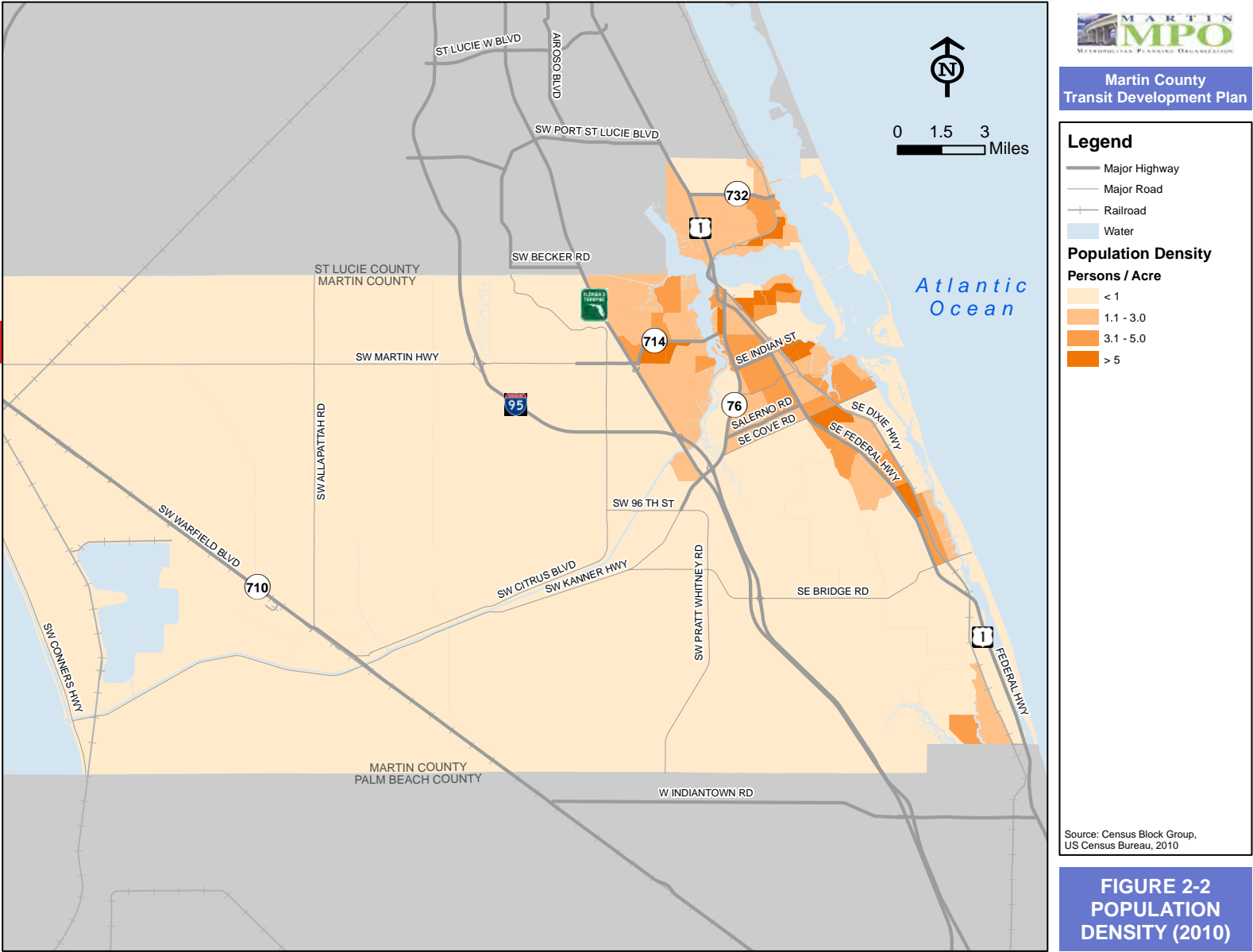
Source: 2007-2011 American Community Survey 5-Year Estimates

Table 2-4: Population and Age Distribution

Geography	Age					
	Under 16 years	Under 18 years	18 to 24 years	25 to 44 years	45 to 64 years	65 years and over
Martin County	22,549	25,895	9,456	28,223	42,771	39,425
% of total population	15.50%	17.80%	6.50%	19.40%	29.40%	27.10%
Florida	3,513,492	3,999,400	1,738,057	4,746,952	4,971,217	3,214,471
% of total population	18.80%	21.40%	9.30%	25.40%	26.60%	17.20%

Source: 2007-2011 American Community Survey 5-Year Estimates

Figure 2-2: Population Density, 2010



As shown in Table 2-4, the age distribution of Martin County is dissimilar to the age distribution of Florida as a whole. The typical transit dependent age group – persons under age 18 and persons age 65 and over – represents approximately 45 percent of the total population in Martin County. It should be noted that age group - persons age under 16 is a subset of age cohort persons age under 18.

Figures 2-4 and 2-5 illustrate these transit dependent populations based on age. As shown in Figure 2-4, a majority of the youth population in Martin County resides in Indiantown, and large portions of Stuart and Palm City. As shown in Figure 2-5, significant portions of the elderly population in Martin County reside in coastal sections of the county.

Income

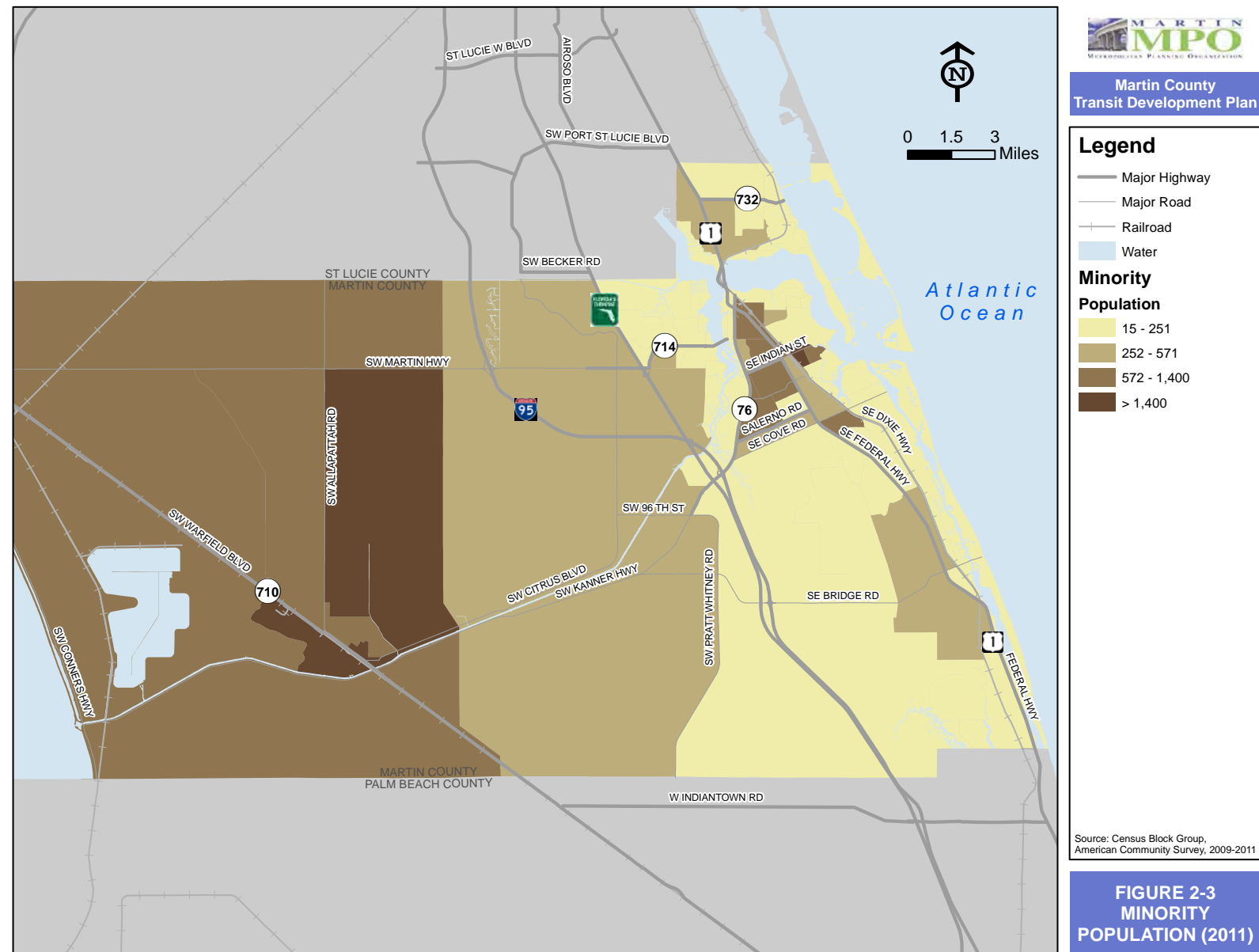
As shown in Table 2-5, the distribution of household incomes for Martin County is dissimilar to that of Florida for the four lowest income categories. The biggest difference between Martin County and the state are in the “\$100,000 and Over” household income category, with Florida at 18 percent and Martin County at 25 percent.

As shown in Figure 2-6, a majority of the low income population in Martin County resides in Indiantown and portions of Stuart and Hobe Sound.

Vehicle Availability

Household vehicle availability plays an important role in determining public transit needs. Zero vehicle households

Figure 2-3: Minority Population, 2011



are traditionally considered transit dependent as they rely heavily upon transit to fulfill their transportation needs. Table 2-6 shows the number of vehicles available by household within Martin County and Florida. As shown, the county's distribution of household vehicle availability is similar to that for Florida. Slightly more than half of the households in the county have at two or more vehicles available to them. Figure 2-7 illustrates the geographic distribution of those zero-vehicle households within the county by census block group.

### Labor Force

Table 2-7 displays the percentage of population age 16 and older in the labor force and the percent of those laborers who were employed in 2011. Although the unemployment

rate in Martin County, 10.7 percent, is similar to that of Florida, the statistics below show that the labor force participation rate in Martin County, 54.5 percent, is significantly lower when compared to Florida. This is in part due to the large elderly population residing in Martin County, who may be retired or impaired.

### Transportation Disadvantaged Population

As shown in Table 2-8, Transportation Disadvantaged (TD) population estimates were calculated for specific subsets of the population in Martin County<sup>1</sup>. Nearly half the entire population, 46 percent, in Martin County is considered TD.

<sup>1</sup> Martin County 2013-2018 Transportation Disadvantage Service Plan, October 2013; page 7.

## 2.3 TRANSPORTATION AND LAND USE NEXUS

Transportation and land use are inextricably linked. For transit to be a viable mode of choice for making trips, certain land use characteristics, employment and population densities, urban design features, and parking policies need to be in place. Conversely, transit projects have the ability to shape land use and land development patterns. A brief discussion of transit supportive land use in Martin County, transit needs identified in the 2035 Regional Long Range Transportation Plan and transit projects of regional significance follows.

### 2.3.1 Transit Supportive Land Use

The Martin County Comprehensive Growth Management Plan, codified through Ordinance No. 931, enacted June 18, 2013 and City of Stuart Comprehensive Plan was reviewed to identify existing land use data or policies that support transit development or public transportation within Martin County. Specific transit supportive policies under various comprehensive plan elements are included in the Technical Memorandum 1: Baseline Conditions and Existing Transit Service Performance Evaluation, February 2014.

Figure 2-4: Population - Age Under 18 Years, 2011

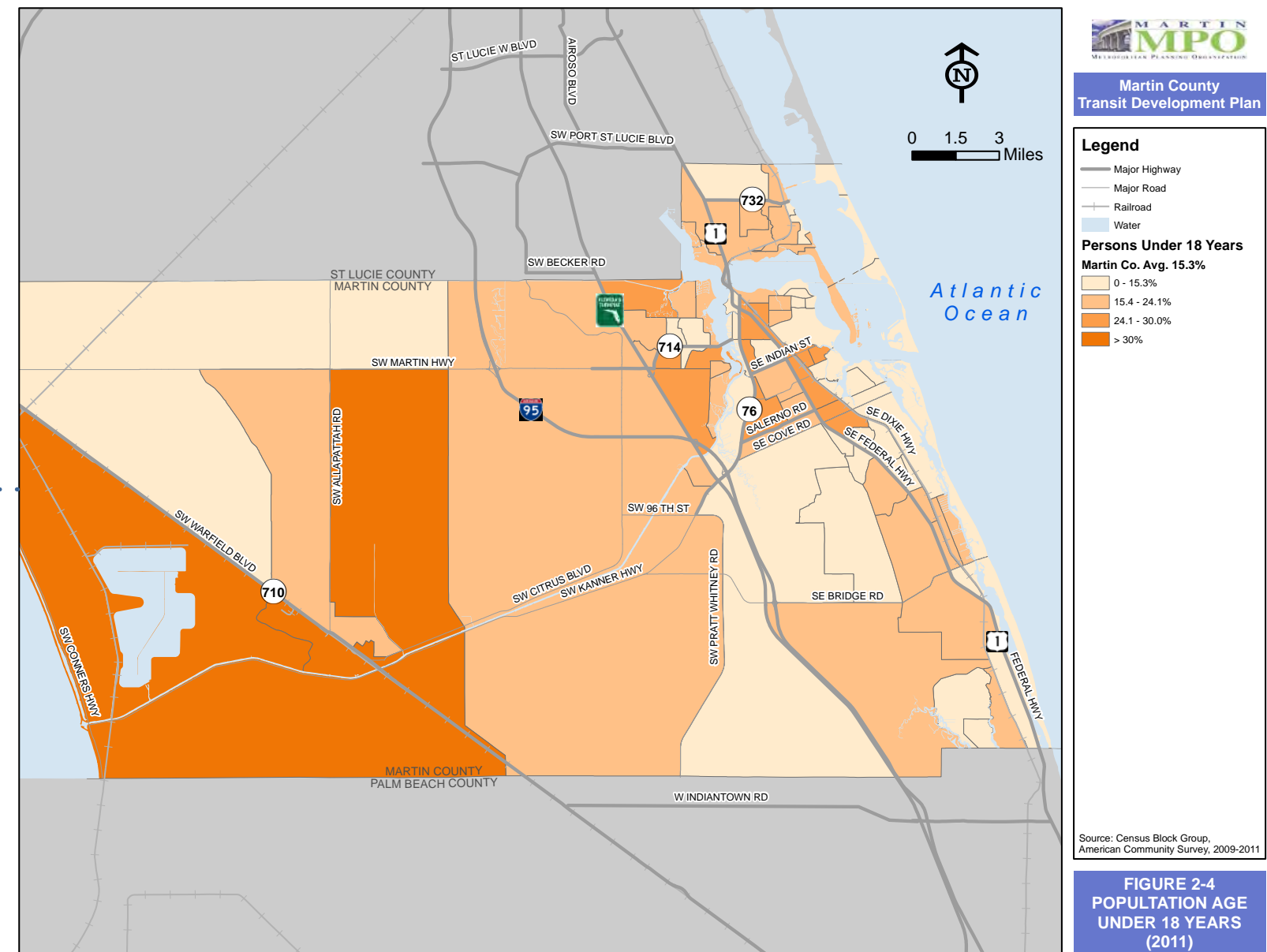






Figure 2-5: Population - Age Over 65 Years, 2011

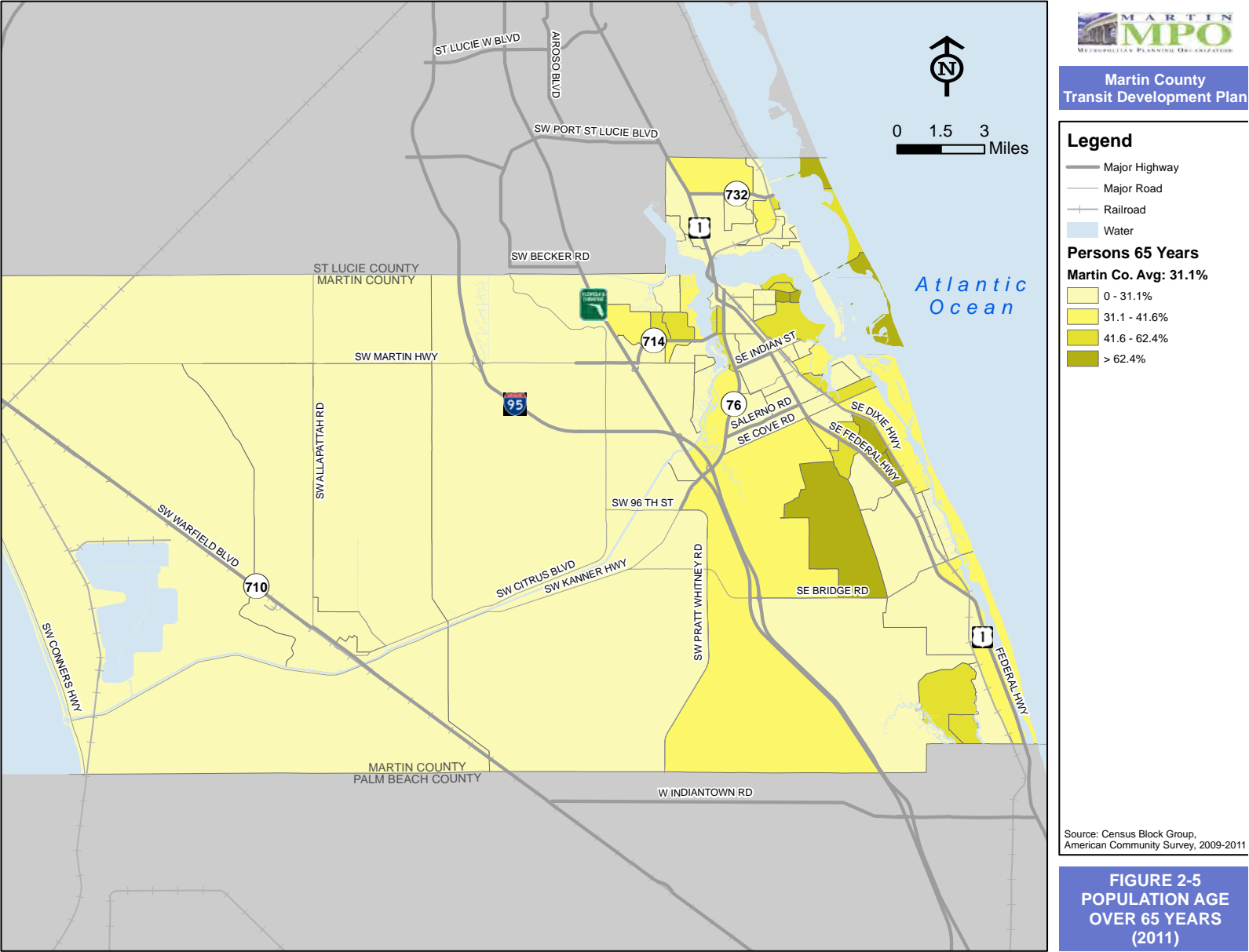


Figure 2-6: Low Income Households, 2011

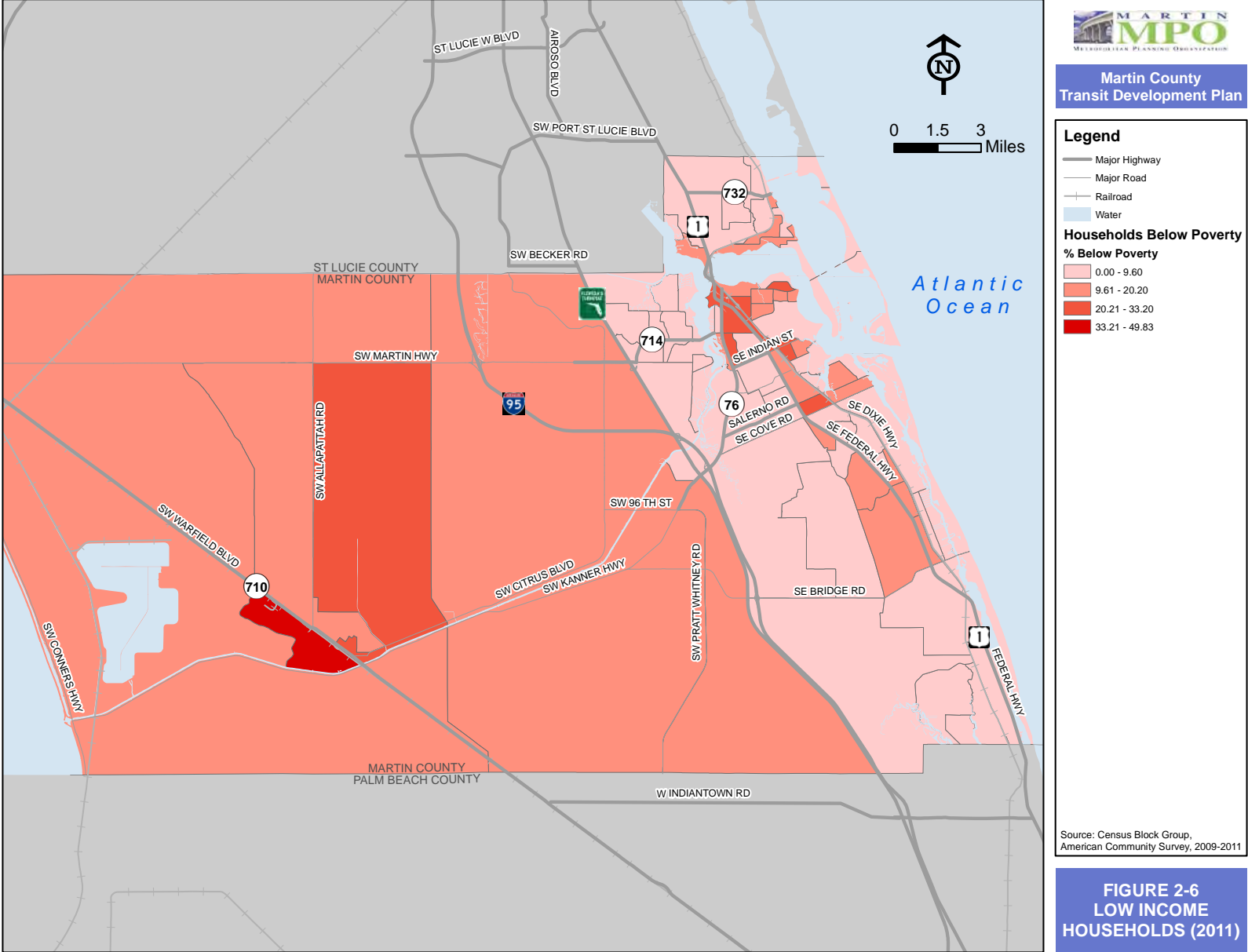


Table 2-5: Household Income Distribution

Geography	Household Income											Median household income	Mean household income
	Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$149,999	\$150,000 to \$199,999	\$200,000 or more			
Martin County	3,322	2,906	6,169	6,465	8,838	10,084	6,881	7,355	3,084	4,211	\$53,612	\$84,450	
% of total households	5.6%	4.9%	10.4%	10.9%	14.9%	17.0%	11.6%	12.4%	5.2%	7.1%			
Florida (in 000s)	521	407	843	843	1,092	1,335	814	764	257	264	\$47,827	\$67,065	
% of total households	7.3%	5.7%	11.8%	11.8%	15.3%	18.7%	11.4%	10.7%	3.6%	3.7%			

Source: 2007-2011 American Community Survey 5-Year Estimates

Table 2-6: Vehicle Availability by Household

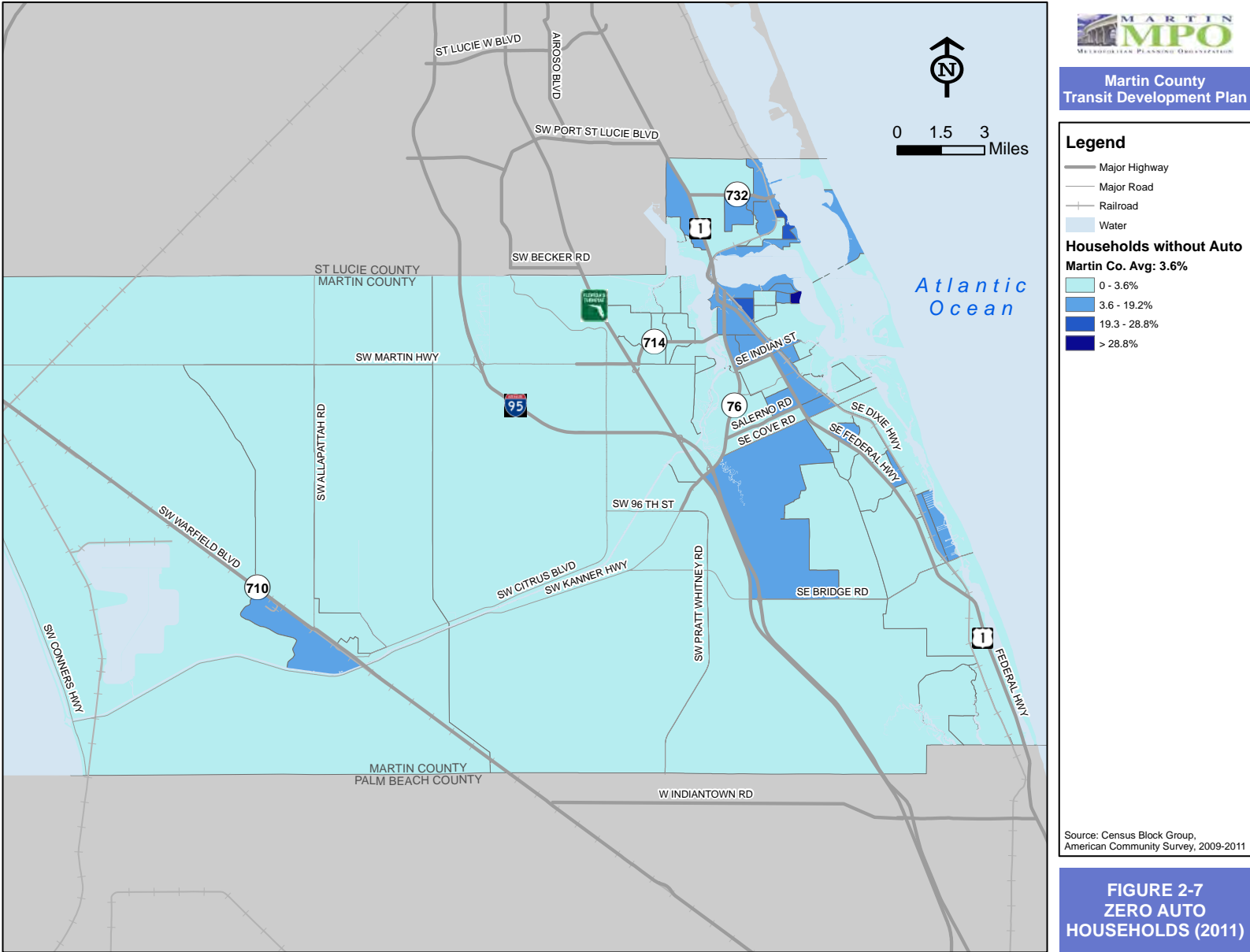
Geography	Number of Vehicles Available			
	No vehicles available	1 vehicle available	2 vehicles available	3 or more vehicles available
Martin County	2,667	25,034	23,286	8,329
% of total households	4.5%	42.2%	39.3%	14.0%
Florida	472,695	2,907,041	2,744,286	1,016,074
% of total households	6.6%	40.7%	38.4%	14.2%

Source: 2007-2011 American Community Survey 5-Year Estimates





Figure 2-7: Zero Auto Households, 2011



The compilation of land use data and policies can assist in understanding the extent to which local land use plans are supportive of efficient provision of transit service within Martin County, identify existing and potential transit ridership generators, and ensure the development of this TDP Major Update is consistent with the Martin County Comprehensive Growth Management Plan.

Major trip generators and major employers in Martin County were determined to evaluate locations with opportunities for high transit ridership. Furthermore, these activity centers refer to major employment centers, major commercial centers, major civic centers, major universities, and other centers that are considered transit trip generators or attractors for high transit ridership.

Figure 2-8 illustrates existing major transit trip generators and attractors within Martin County, which are a mix of retail, commercial, recreational, medical, cultural, and academic facilities.

Figure 2-9 shows the existing major employers in Martin County, which are grouped into five categories that include Aerospace, Banking, Healthcare, Retail, and Trucking.

In Martin County, the primary future land use designations that are considered “transit supportive” are categorized as medium or high density residential and multi-family residential. Furthermore, mixed use overlays and community redevelopment areas are indicative of areas where transit is needed or where existing transit services

may need improvements. As shown in Figure 2-10, these transit supportive land uses are generally concentrated in the northeastern quadrant of the county (Stuart and Palm City), east-central portion of the county (Hobe Sound), and western section of the county (Indiantown). Commercial land uses are located primarily along U.S. 1 and S.R. 76. Martin County’s focus is infill development in the existing urban service area, with limited growth in the western portion of the County.

2.3.2 Regional Long Range Transportation Plan, 2035

In regard to capital infrastructure, the Martin/St. Lucie County 2035 Regional Long Range Transportation Plan (2035 LRTP), includes transportation improvements for Martin County to meet community short- and long-term needs.

Bicycle, Pedestrian, Greenways, and Trails Vision

The Martin/St. Lucie 2035 Bicycle, Pedestrian, Greenways, and Trails Vision was developed based on input from local government and MPO staff, reviewing and identifying MPO project priorities from the Transportation Improvement Program (TIP) as well as identifying projects from the 2030

LRTP. Projects were also added from a holistic perspective for future non-motorized network connectivity. The existing bike and sidewalk facilities (Figure 2-11) in Martin County are displayed on Page 24.

Multimodal Transportation Strategies

As shown in Figure 2-12, the 2035 Future Bus and Train Network was developed based on the Martin/St. Lucie Transit Development Plan (TDP). A few key regional projects were added to the Future Bus and Train Network map including the U.S. 1 Corridor Retrofit project, Passenger Train Service along the Florida East Coast (FEC) Railroad corridor.

Roadway Congestion

As projected in the 2035 LRTP, Figure 2-13 demonstrates that a number of roadways will experience congestion resulting from the growth in travel demand over the 25-year period, even if all the improvements in the TIP were implemented. Martin County Public Transit buses traverse some of these heavily congested corridors that adversely impact transit speed and travel time. It is imperative to make transit service more efficient and productive as well as reliable from customer’s standpoint so that it can serve as an alternative transportation mode for the residents of Martin County.

Table 2-7: Labor Force Participation

Geography	Population 16 years and over	In labor force	Employed	Unemployed	Not in labor force
Martin County	122,980	54.5%	48.6%	10.7%	45.5%
Florida	15,169,949	61.1%	54.4%	10.3%	38.9%

Source: 2007-2011 American Community Survey 5-Year Estimates

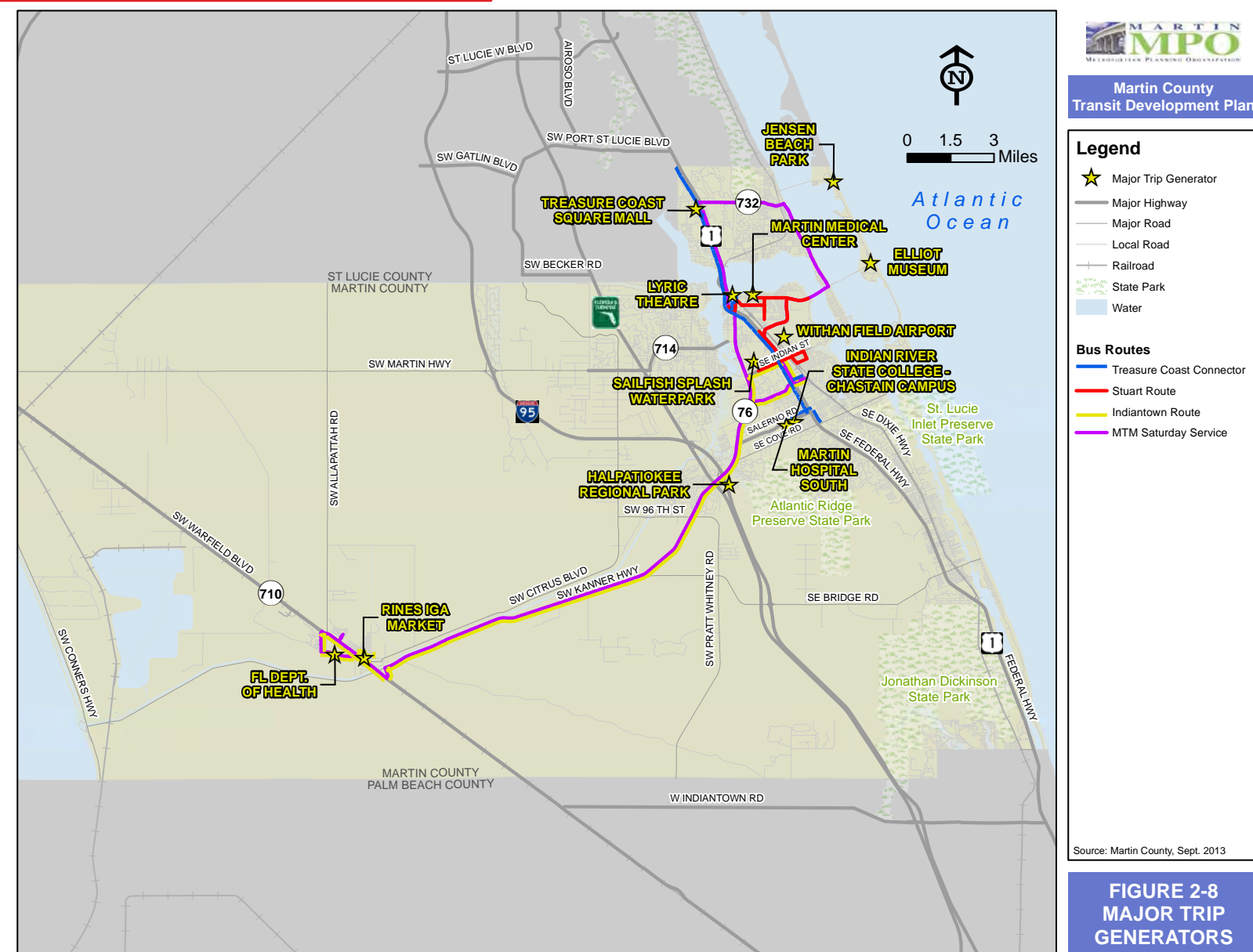
Table 2 8: Transportation Disadvantaged Population

Subject	Population	% of Total Population
Estimate non-elderly/disabled/low income	1,865	1.3%
Estimate non-elderly/disabled/not low income	6,093	4.2%
Estimate elderly/disabled/low income	1,108	0.8%
Estimate elderly/disabled/not low income	11,207	7.8%
Estimate elderly/non-disabled/low income	1,244	0.9%
Estimate elderly/non-disabled/not low income	30,634	21.4%
Estimate low income/not elderly/not disabled	13,246	9.2%
Total Transportation Disadvantaged Population	65,397	45.6%

Source: Martin County Transportation Disadvantaged Service Plan, October 2013



Figure 2-8: Major Trip Generators



### 2.3.3 Regional Projects and Initiatives

#### Tri-Rail Coastal Link

The reintroduction of passenger rail service on the Florida East Coast rail corridor has been a long-standing priority for more than two decades. Since 2005, the Florida Department of Transportation (FDOT), along with the South Florida Regional Transportation Authority (SFRTA), metropolitan planning organizations (MPOs), regional planning councils (RPCs), and others have been working together on a comprehensive master plan for premium transit service in Southeast Florida. FDOT has served as the lead agency to manage the Tri-Rail Coastal Link (TRCL) project, which

was formerly known as the South Florida East Coast Corridor Transit Analysis Study. This project is envisioned as a long-term, multi-phase approach to expand the transit system between the Town of Jupiter, in northern Palm Beach County, and downtown Miami (TCRPC, 2013).

Palm Tran's Route 95 Commuter Express used to connect residents of Martin County to Palm Beach County via Interstate 95. This service was discontinued in 2011 due to low ridership. But improved service plan and access to multiple destinations throughout South Florida via the Tri-Rail Coastal Link project has potential to attract residents of Martin County to use this regional passenger rail service if seamless transit connection can be provided.

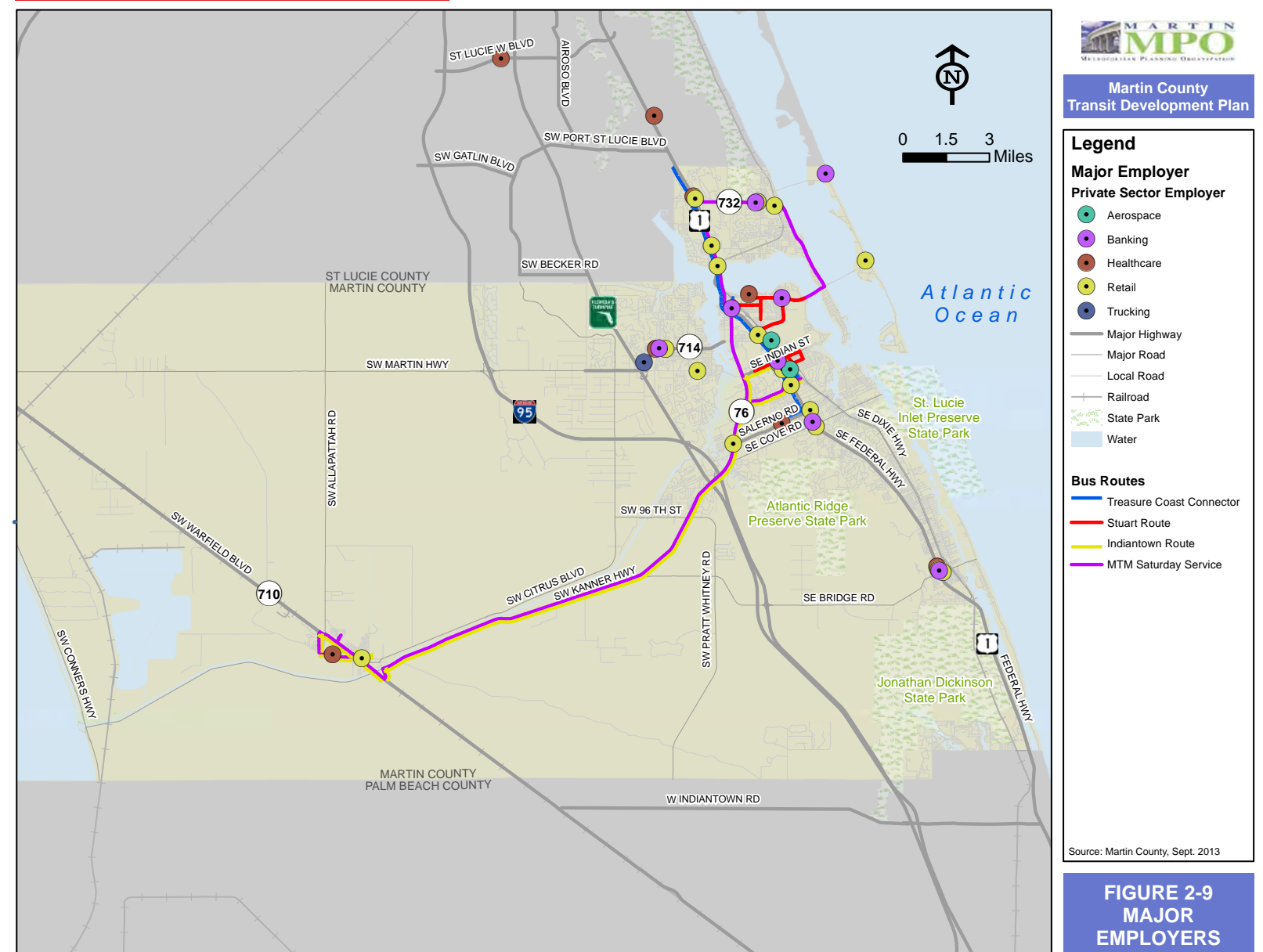
#### All Aboard Florida (AAF)

Florida East Coast Industries (FECI) is developing a privately owned, operated and maintained intercity passenger rail service that will give business and leisure passengers a new convenient way to travel between South Florida and Central Florida. The new route will feature passenger service along the existing Florida East Coast Corridor between Miami and the Space Coast and the creation of new tracks into Central Florida. Stations are currently planned for the downtowns of Miami, Fort Lauderdale, West Palm Beach and the future Intermodal Station at the Orlando International Airport. Station design

is advancing and the route will include stations in downtown Miami and Orlando, with intermediate stops in downtown Fort Lauderdale and downtown West Palm Beach. Stations will provide access to international airports, seaports and existing transit systems (<http://www.allaboardflorida.com/fact-sheet>).

Currently, there are no plans for locating a station in Martin County. But if this project is successful and expands to other part of the state, it is possible that a variety of service plans may be developed and a station in Martin County in the future could be viable.

Figure 2-9: Major Employers







Amtrak

Of particular importance to Martin County is the proposed Amtrak/Florida East Coast Corridor project, which would reinstate passenger rail service, in the form of Amtrak, on the Florida East Coast Corridor between Jacksonville and West Palm Beach, where service would interconnect with existing Amtrak service and continue south to Miami. The Amtrak/Florida East Coast Corridor project has been submitted for funding under the American Recovery and Reinvestment Act High Speed/Intercity Passenger Rail program.

Eight new passenger stations are proposed to be constructed between Jacksonville and Stuart as part of the project.

The Preferred Station Alternative includes the use of the proposed Martin County Transit Depot, along Stypmann Boulevard, to accommodate the proposed passenger rail service. A future Amtrak station in Stuart will enhance local downtown redevelopment initiatives, strengthening the land use/transportation link by attracting Amtrak riders into these pedestrian-friendly environments. Amtrak has sought stations in these cities due to their well-established downtown redevelopment programs that are characterized by compact, mixed-use patterns of development. Amtrak's expansion would also shift regional traffic off some roadways (particularly Interstate 95 and the Florida's Turnpike) and onto the rail corridor thereby reducing carbon emissions and traffic congestion.

Figure 2-10: Transit Supportive Zoning

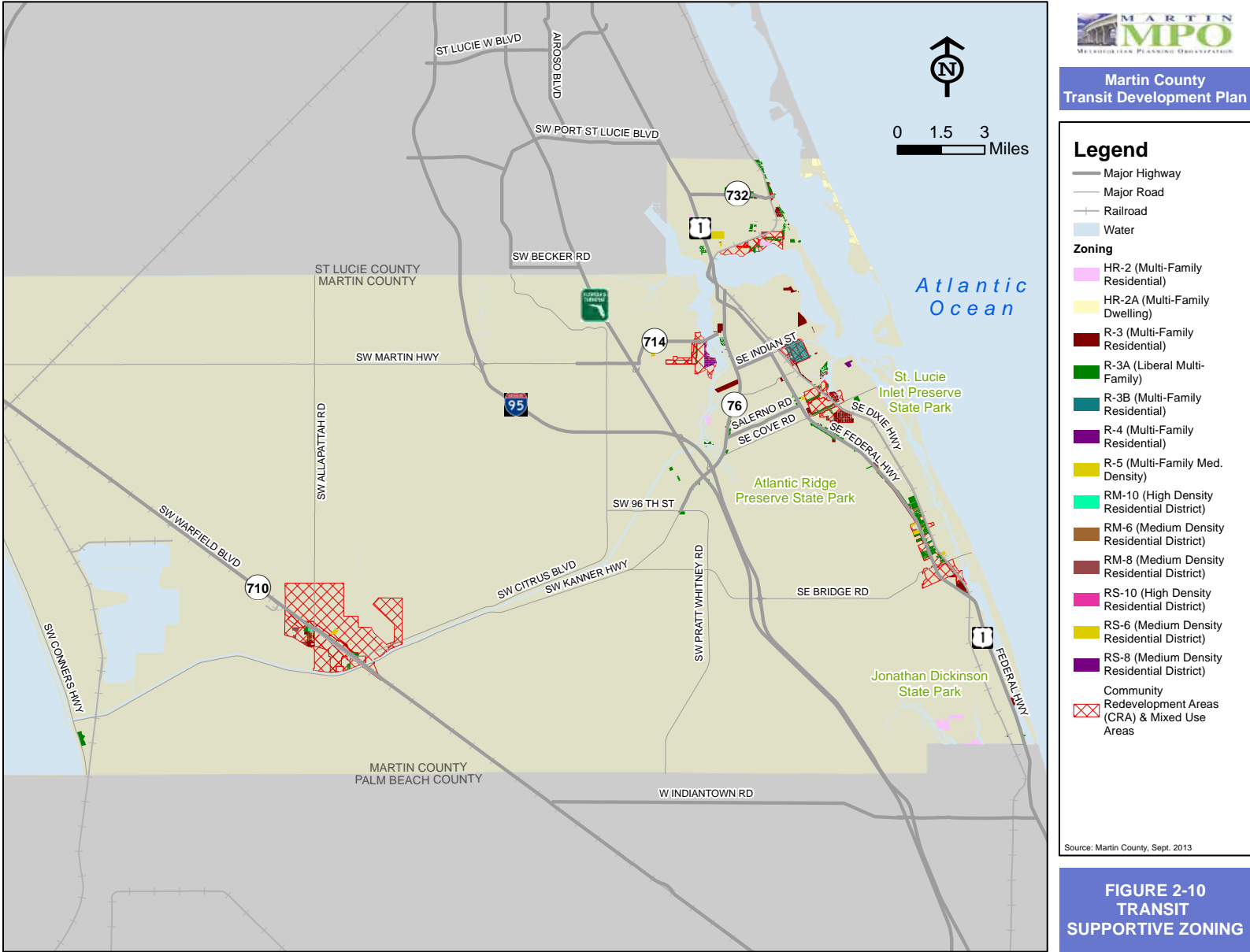
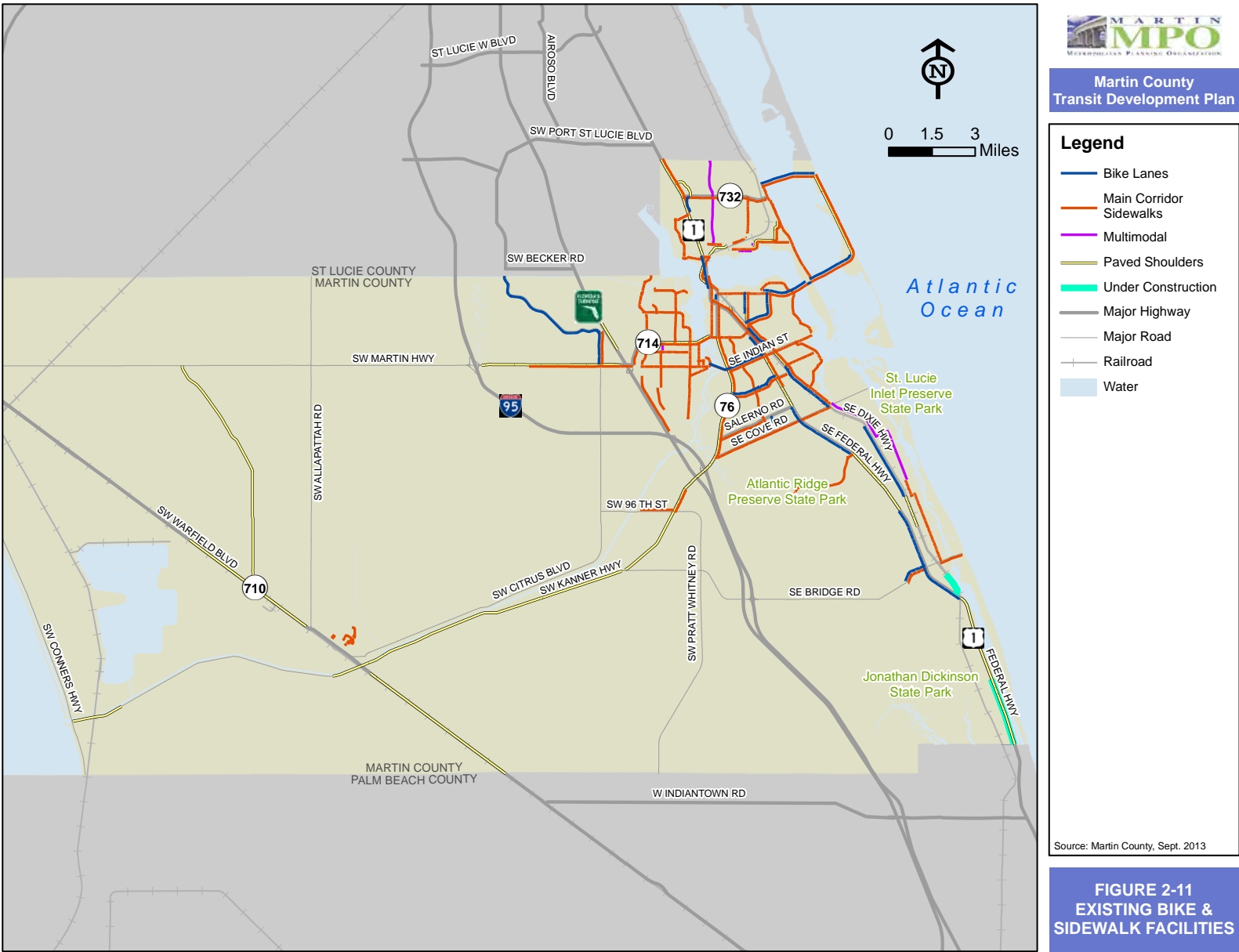


Figure 2-11: Existing Bike and Sidewalk Facilities



2.4 COMMUTING PATTERNS

Traffic congestion in urban areas is predominantly caused by commuting patterns. Home-to-work commuting (journey-to-work) trips play a unique role by determining the peak travel demand for transportation systems. Understanding how workers travel to their workplace and utilize transportation amenities and infrastructure can help make informed decisions about transportation policies, capital investments, transit services, and even public outreach activities.

The US Census Bureau provides data on commuting patterns through two programs. One is the Longitudinal Employer-Household Dynamics (LEHD) program which produces information on the number of jobs from residence

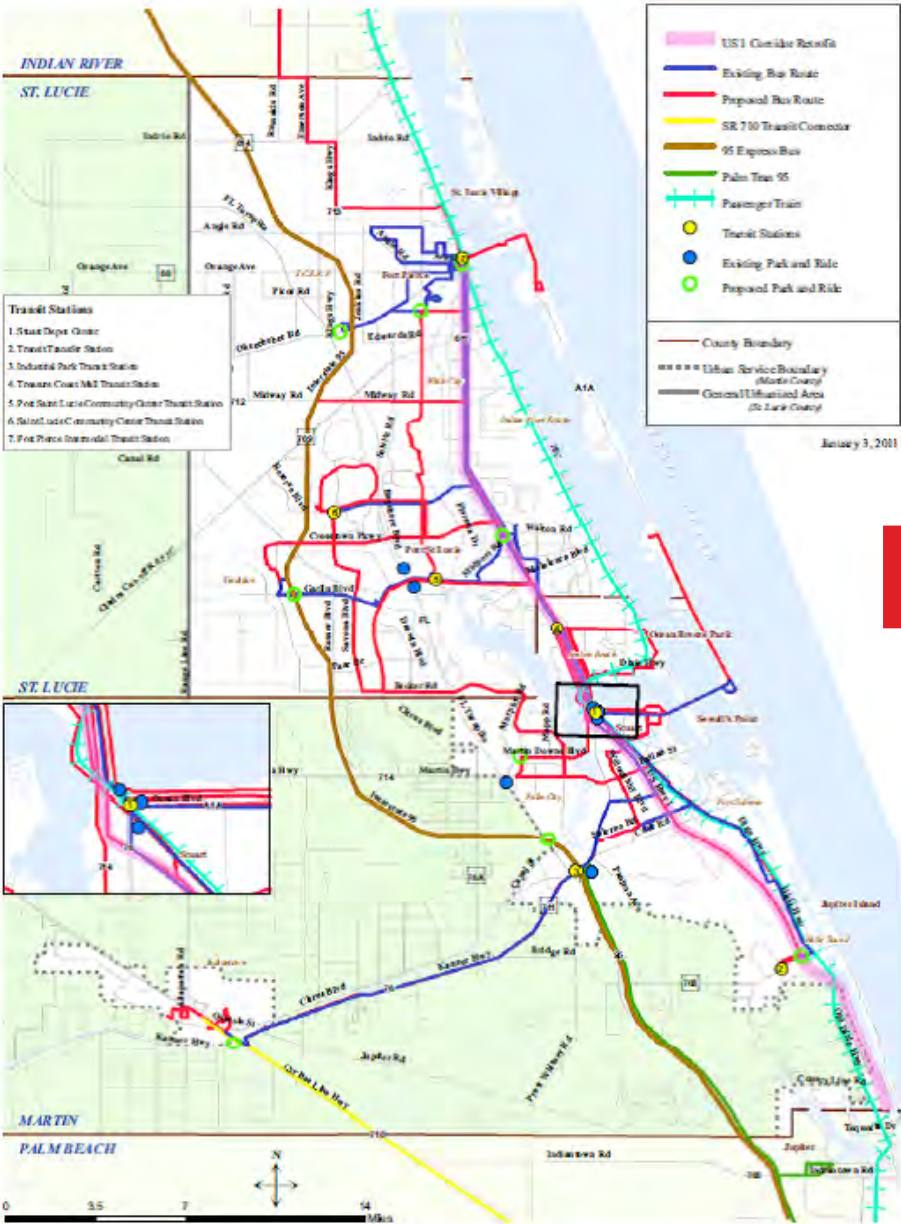
to workplace at census block level by age group, earnings group, and industry types on an annual basis. The latest data available is for Year 2011.

The other program is the Census Transportation Planning Products (CTPP) which uses decennial Census data or the American Community Survey (ACS) data to develop three-year commuting data tabulations at county level, and five-year commuting data tabulations at census tract level or Transportation Analysis Zone (TAZ) level. The most recent ACS/CTPP data available is the five-year (2006-2010) data released at the end of October, 2013.





Figure 2-12: Transit Needs, 2035 Regional Long Range Transportation Plan



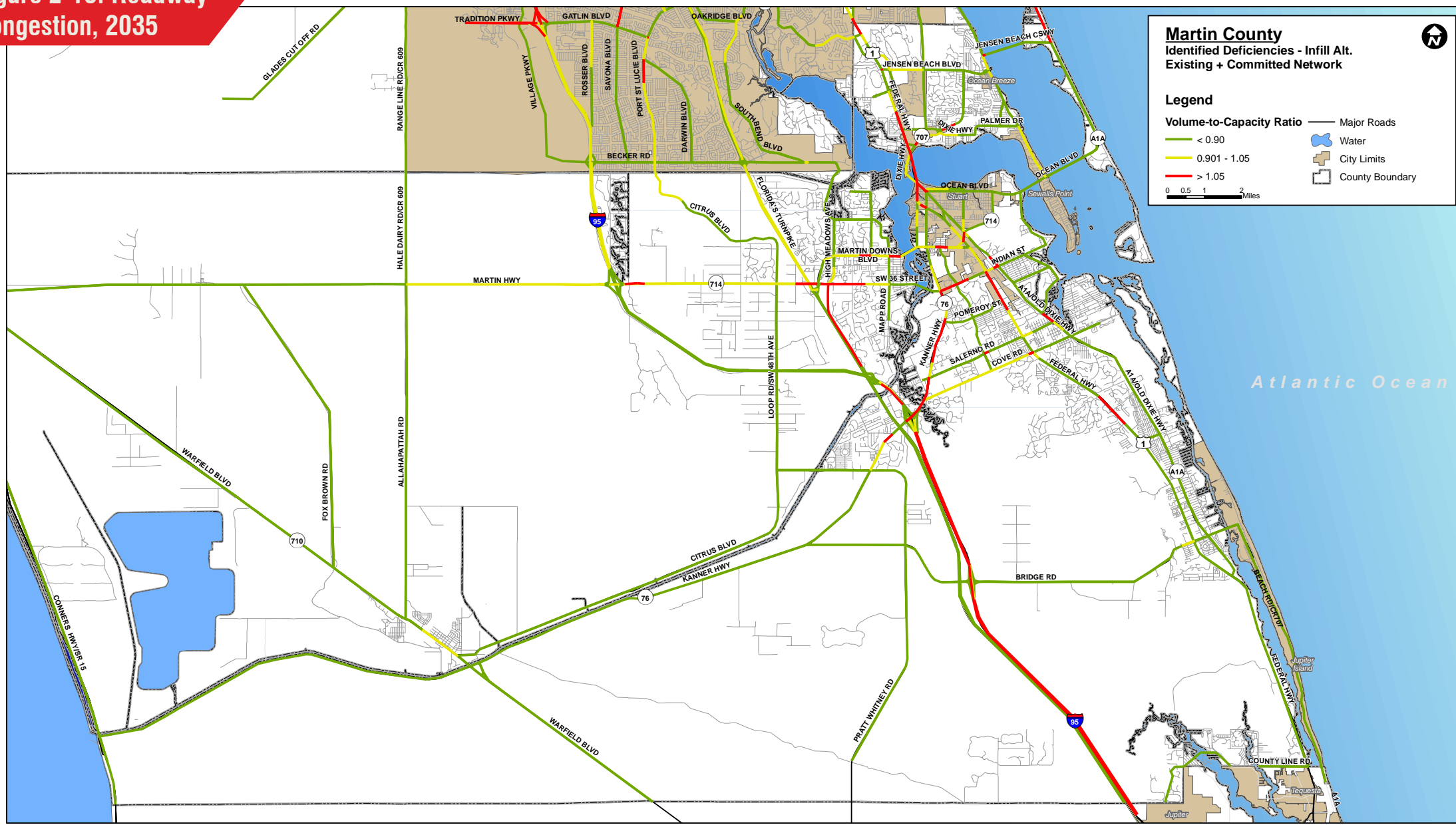
The LEHD data was used to summarize the work flows between residence place and employment location. The ACS/CTPP data was used to show Means of Transportation (MOT) to work for workers living in an area (or by place of residence), and workers working in an area (or by place of employment). The commuting characteristics for Martin County are presented using both the most recent LEHD data and the newly released ACS/CTPP data in this section.

Recognizing the significant interactions between Martin County and its neighboring counties, the analysis was first conducted at the county level to assess the overall demand for both intra-county travel and inter-county travel. This section provides a summary of the county level commuting

characteristics. To better understand the true nature of transit market and to facilitate transit service planning, further analysis was conducted at the place level, or city level, which is documented in the *Technical Memorandum 1: Baseline Conditions and Existing Transit Service Performance Evaluation, February 2014*. 2.4.1 Commuting Pattern at the County Level.

Table 2-9 shows the top five (5) counties where workers living in Martin County were employed in 2011. Among the 51,650 workers living in Martin County, only 42% were employed within Martin County. The majority of Martin County residents traveled to other counties to work, with Palm Beach County (12,223 or 23.7%) and St. Lucie County

Figure 2-13: Roadway Congestion, 2035



Source: 2035 Regional Long Range Transportation Plan, Martin/St. Lucie County



Table 2-9: Journey-to-work Flows for Workers Residing in Martin County (2011)

Residence County	Workplace County	Number of Workers
Martin County	Martin County	21,731 (42.1%)
Martin County	Palm Beach County	12,223 (23.7%)
Martin County	St. Lucie County	5,142 (10.0%)
Martin County	Broward County	2,315 (4.5%)
Martin County	Miami-Dade County	1,907 (3.7%)
Martin County	Other Counties	8,332(16.1%)
Total Workers Residing in Martin County		51,650 (100%)

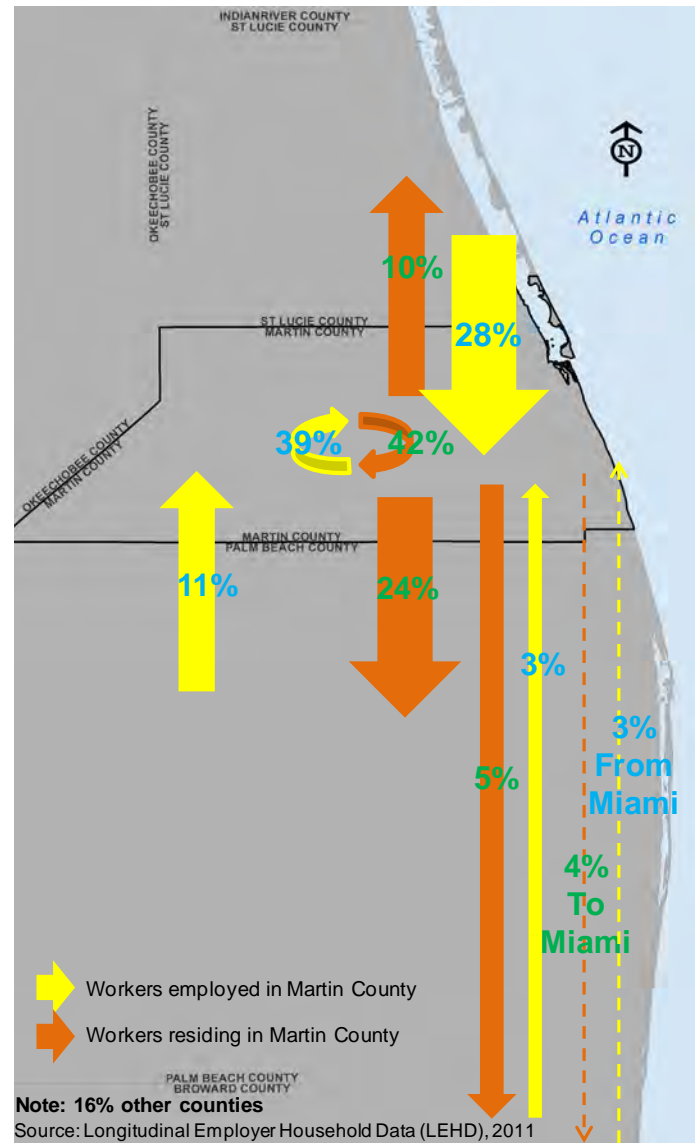
Source: US Census Bureau, Longitudinal Employer Household Dynamics (LEHD) Data, 2011

Table 2-10: Journey-to-work Flows for Workers Employed in Martin County (2011)

Residence County	Workplace County	Number of Workers
Martin County	Martin County	21,731 (39.1%)
St. Lucie County	Martin County	15,303 (27.6%)
Palm Beach County	Martin County	5,984 (10.8%)
Broward County	Martin County	1,744 (3.1%)
Miami-Dade County	Martin County	1,654 (3.0%)
Other Counties	Martin County	9,116 (16.4%)
Total Workers Employed in Martin County		55,532 (100.0%)

Source: US Census Bureau, Longitudinal Employer Household Dynamics (LEHD) Data, 2011

Figure 2-14: Existing Commute Patterns



(5,142 or 10%) as top destinations. Figure 2-14 illustrates existing commute patterns for residents and workers in Martin County.

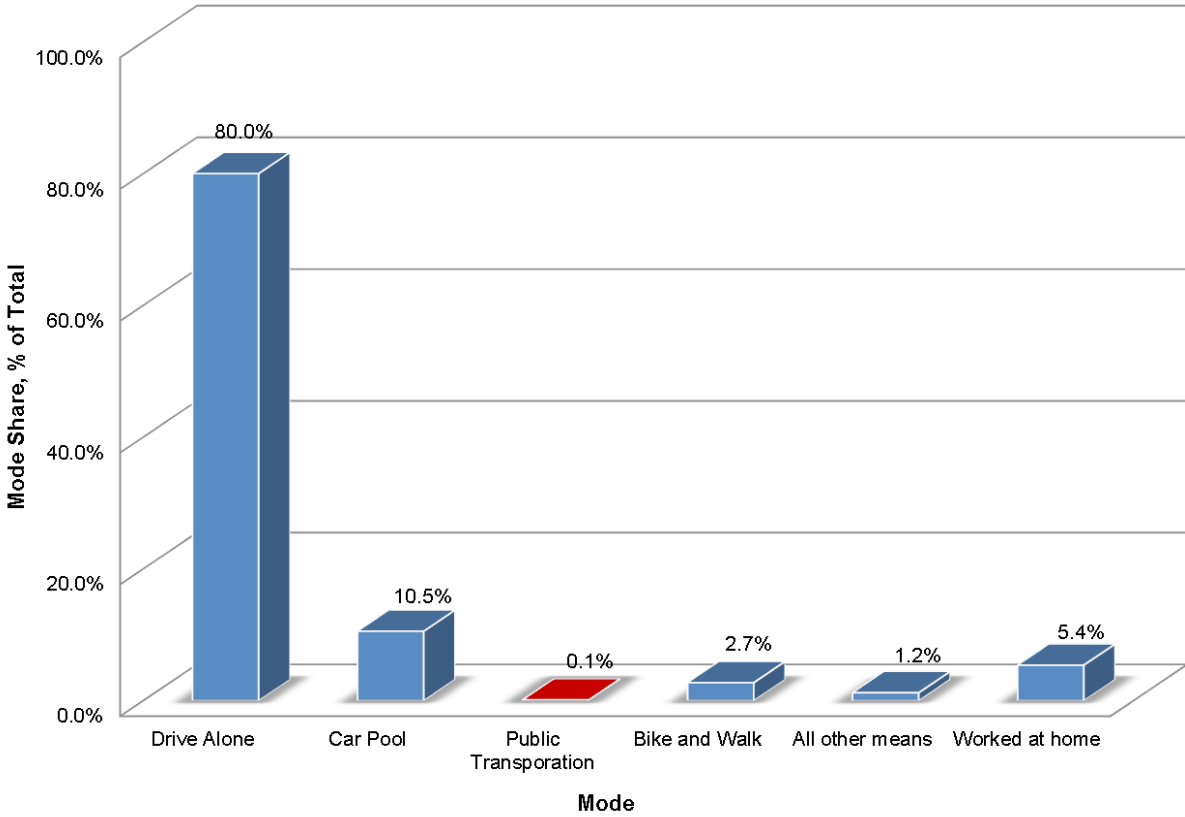
Figure 2-15 presents the Means of Transportation to work for workers living in Martin County as reported by ACS/CTPP for years 2006 to 2010. Eighty percent (80%) of workers drove to work by themselves, and 10% shared a ride with other people. Only 0.1% of workers used public transportation to go to work. About 2.7 percent either walked or rode a bicycle to work; approximately twice as many people (5.4%) worked at home.

Table 2-10 lists the top five (5) counties where workers employed in Martin County resided in 2011. A total of 55,532 workers were employed in Martin County. There were more workers traveling into Martin County than traveling out of Martin County to work. A large number of Martin County workers (15,303 or 27.6%) lived in St. Lucie County; and 5,984, or 10.8%, of workers were Palm Beach County residents.

Figure 2-16 illustrates the Means of Transportation to work for Workers employed in Martin County from 2006 to 2010. Similar to workers living in Martin County, automobile was the dominant mode of transportation accounting for more than 90% of work trips. Public Transportation made up only 0.3% of travel.

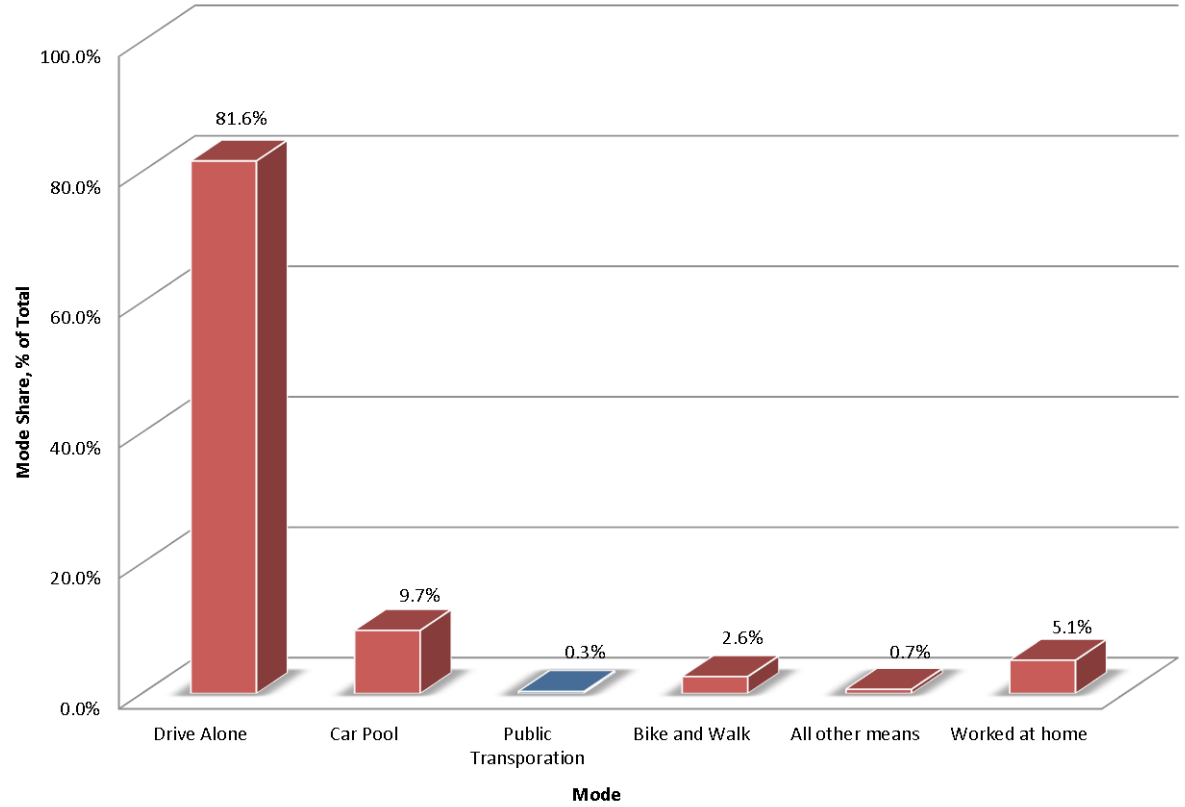
In conclusion, the demographic and commuting patterns analyses in conjunction with identification of transit supportive land use was used to derive transit demand and needs for Martin County, which is discussed in Chapter 5.

Figure 2-15: Means of Transportation to Work for Workers Residing in Martin County



Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-year Estimates.

Figure 2-16: Means of Transportation to Work for Workers Employed in Martin County



Source: U.S. Census Bureau, American Community Survey 2006-2010 Five-year Estimates.



# Transit Service Performance Evaluation

This chapter describes the existing transit service in Martin County and discusses trends for Martin County Public Transit's (MCPT) performance over the past two years as well as with selected peers to identify strengths and weaknesses of the transit system.

## 3.1 EXISTING TRANSIT SERVICE

Martin County Public Transit (MCPT) operates three (3) fixed bus routes in Martin County with connectivity to St. Lucie County. Fixed route bus service includes the Treasure Coast Connector, Stuart Route, and Indiantown Route. The City of Stuart operates the micro-transit Stuart Shuttle in the downtown area that serves as a circulator providing transit service on weekdays and weekends.

There are five (5) existing park-and-ride lots in Martin County. Three park-and-ride lots are located in downtown Stuart (Sailfish Circle, Kiwanis, and Osceola Park-and-Ride) while the other two are located at the Florida's Turnpike interchange at Martin Downs Boulevard and south of Kanner Highway (SR 76)/east of Lost River Boulevard (Halpatiokee Regional Park-and-Ride) (Figure 3-1). These fixed bus routes provide passengers the opportunity to commute to work, school, medical facilities, grocery and other major shopping stores, and recreational areas. The routes are designed to allow riders to easily transfer between routes and efficiently get to where they need to go. A brief description the three fixed bus routes in the County follows:

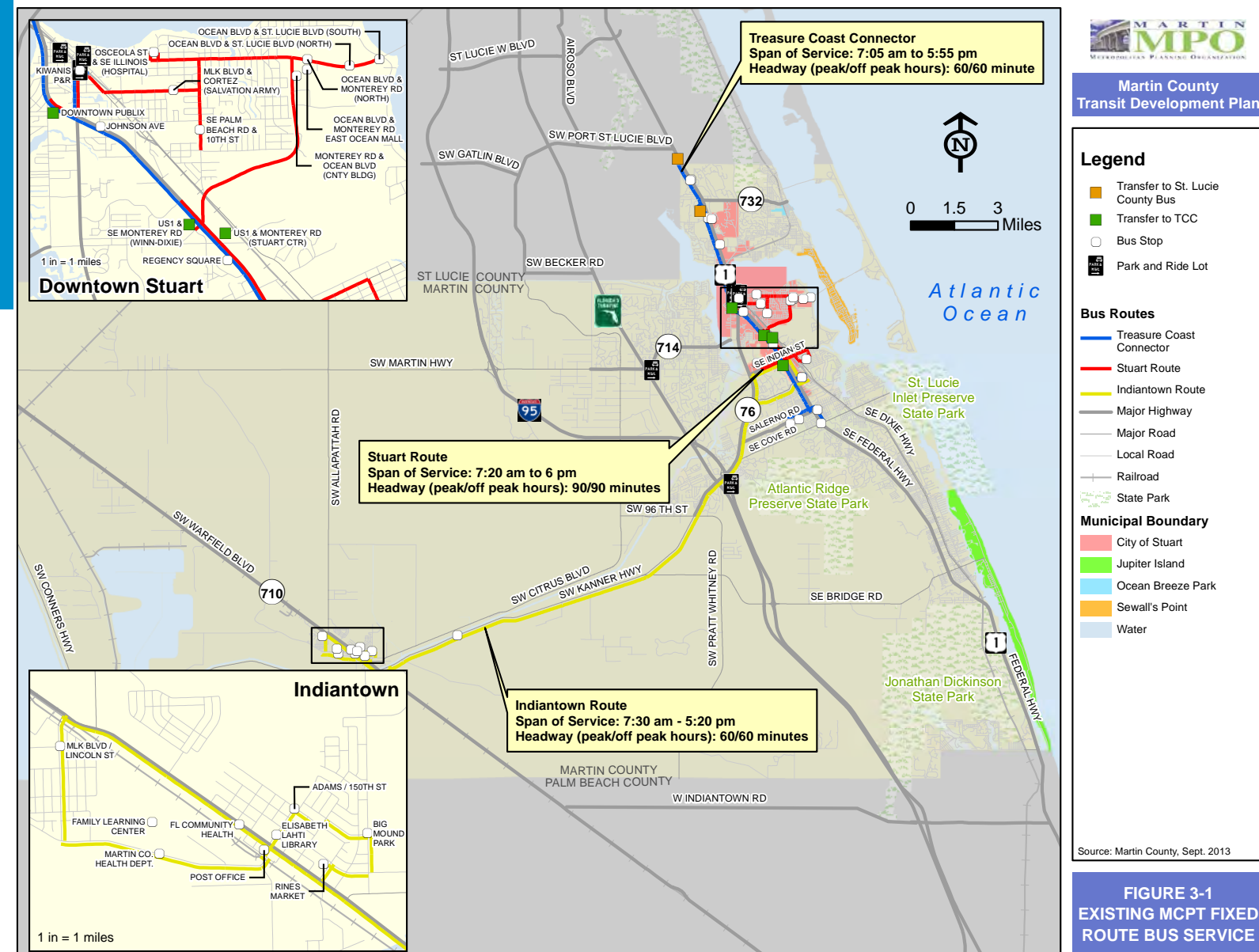
Typically headway on the fixed route bus service is approximately 60 to 90 minutes. All Martin County buses are equipped with wheelchair lifts and bike racks. The fixed route bus service is available from 7:00 am to 6:00 pm on weekdays. There is no bus service on the weekends or holidays. Effective June 1, 2013, the MCPT instituted a \$1.50

fare per boarding. Further, riders pay a transfer fee of \$1.50 for every transfer. Riders do not pay a transfer fare when transferring between St. Lucie County and Martin County bus service.

The Council on Aging of Martin County (COAMC), a nonprofit organization, initiated the Community Coach transit service in the late 1980s. In October 2008, COAMC ceased to be considered a sub-recipient for transit funds and became a contractor. Beginning April 2011, Martin County took over the responsibility of the National Transit Database (NTD) reporting from COAMC. In February 2012, the County selected MV Transportation to operate the MCPT fixed route bus service.

In addition to the fixed route bus service, MCPT operates a deviated fixed route service in Indiantown. The deviated fixed route service is a scheduled route that may deviate up to ¼ of mile from time to time to pick up riders. Martin County provides ADA (*Americans with Disabilities Act – ADA is a federal law which projects the civil rights or people with disabilities*) complimentary service, which is a shared ride, door-to-door trip provided to ADA eligible individuals whose origin and destination fall within ¼ mile of a scheduled fixed route service. Further, the County provides general demand response (DR) or paratransit service to all the residents through Medical Transportation Management (MTM), the Community Transportation Coordinator.

Figure 3-1: Existing Martin County Public Transit Fixed Route Bus Service



An evaluation of the existing fixed route transit service offered by Martin County Public Transit (MCPT) was conducted to understand the overall system level performance on an annual basis over time. This performance evaluation covers a wide variety of operating and financial data over a period of six years (from year 2007 to 2012) as well as data that explains the overall systemwide characteristics. These data and performance indicators are categorized in to three major groups.

- » General Performance
- » Effectiveness
- » Efficiency

Data for trend analysis for years 2007 to 2011 was collected using the online databases - the Florida Transit Information Systems (FTIS) and National Transit Database (NTD). Data for the year 2012 provided in raw report format by Martin County.

The performance evaluation and trend analysis will help identify areas where MCPT is performing well and provide a focus on areas that may need management's intervention. The changes in the performance resulting possibly from the change in operators are anticipated to be discernible from the trend analysis. Further, this analysis will aide in identifying strategic improvements that can be used a key input when developing alternatives for future public transit development in Martin County. It should be noted that the





highly objective data-based performance evaluation of the transit system has limitations in that it does not account for customer satisfaction and community aspirations. The rider and non-rider surveys in conjunction with public workshops will be used to cover the customer orientation aspect.

Fixed Route Trend Analysis

Table 3-1 presents the different indicators and measures that were used in assessing the performance for the fixed route transit service in Martin County.

Performance Indicators

General performance indicators are used to evaluate systemwide operating performance. Table 3-2 and Figures 3-2 through 3-9 illustrate the key performance measures used in the trend analysis for COAMC (FY 2007 through FY 2011) and MCPT (FY 2011 and FY 2012). Given the structural changes that occurred in the transit agency in Martin County, data available for conducting trend analysis for the MCTP agency is for the past two years. Per *Florida Department of Transportation (FDOT) Guidance for Producing a Transit Development Plan, August 2009*, historical data for a minimum of three years and preferably

five years should be used for conducting trend analysis. To better understand the “cliff effects” that may be evident in the trend analysis, historical data for both the COAMC and MCPT was analyzed.

A summary of the trends for overall system performance follows.

- » Passenger trips (approximately 22,300 to 67,200 boardings) and passenger miles (approximately 73,600 to 244,900) for MCPT increased more than 200 percent between FY 2011 and FY 2012 indicating strong demand or consumption for transit service. Conversely, the both passenger trips and passenger miles were on a downward trend for COAMC and declined by 55 percent and 23 percent respectively between FY 2007 and FY 2011 (Figures 3-2 and 3-3).
- » Vehicle miles (approximately 76,300 to 149,000) and revenue miles (approximately 68,600 to 130,000) for MCPT increased approximately 90 percent or more between FY 2011 and FY 2012. For COAMC, between FY 2007 and FY 2011, vehicle miles and revenue miles increased by more than 150 percent and 200 percent respectively. It should be noted that the difference between vehicles miles and revenue miles for MCPT is significantly lower when compared to COAMC, which indicates less dead head or non-revenue service hours (Figures 3-4 and 3-5).

- » Revenue hours (approximately 4,600 to 11,100) for MCPT increased about 140 percent between FY 2011 and FY 2012 while there was no change in the number of route miles (approximately 48 miles). For COAMC, between FY 2007 and FY 2011, revenue hours increased slightly over 140 percent but the route miles increased more than six-fold. (Figures 3-6 and 3-7). A primary reason for such significant reduction in route miles could be that MCPT discontinued one or more of the longer routes and redirected resources to other bus routes resulting in increased revenue hours.
- » Total operating expense more than doubled (approximately \$ 203,300 to\$ 460,000), an increase of 126% for MCPT between FY 2011 and FY 2012. For COAMC, the operating expenses increased by 120 percent between FY 2007 and FY 2011. The operating expense numbers are expressed in 2007 dollars based on an annual inflation adjustment factor of 2.6 percent (Figure 3-8).
- » The number of vehicles operated in maximum service (VOMS) did not change for MCPT. The agency continued to operate four (4) vehicles in FY 2011 and FY 2012. However, the COAMC saw a 300 percent increase in VOMS between FY 2007 and FY 2011 (Figure 3-9).

Figure 3-2: Unlinked Passenger Trips (in 000s) Figure 3-3: Passenger Miles (in 000s)

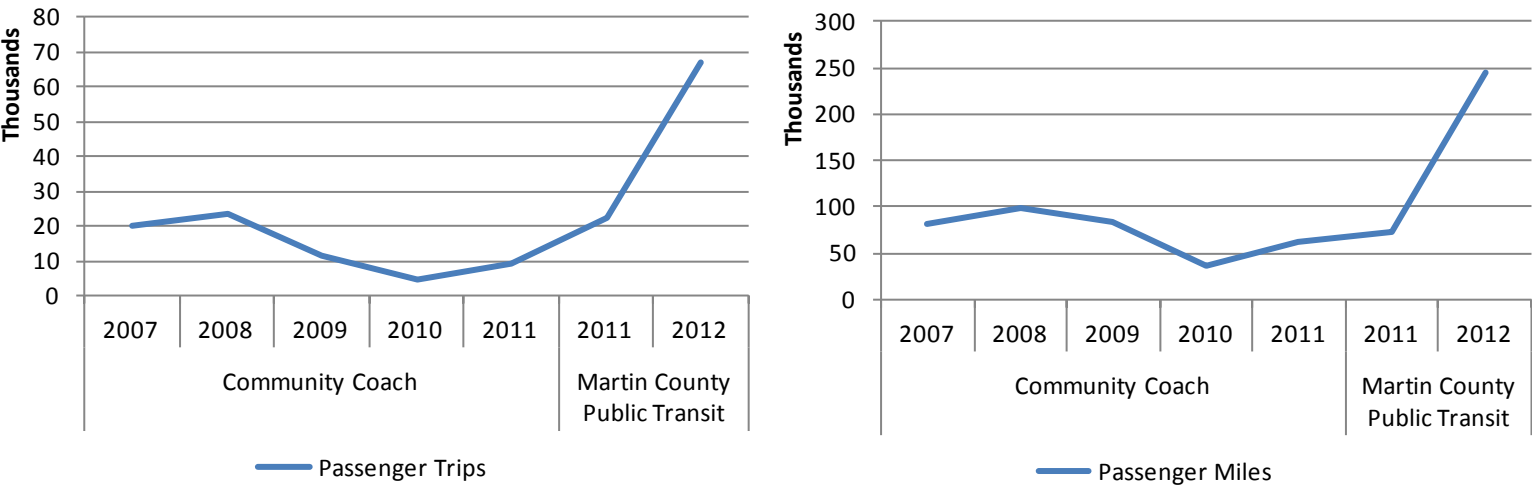


Figure 3-4: Vehicle Miles (in 000s) Figure 3-5: Revenue Miles (in 000s)

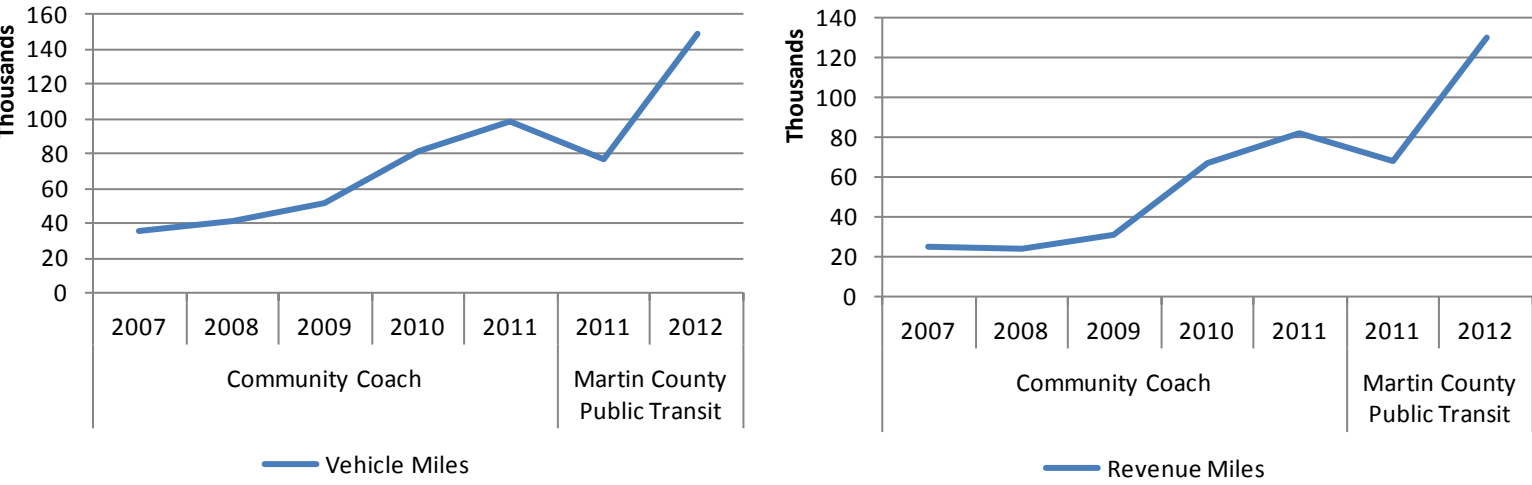


Figure 3-6: Revenue Hours (in 000s) Figure 3-7: Route Miles

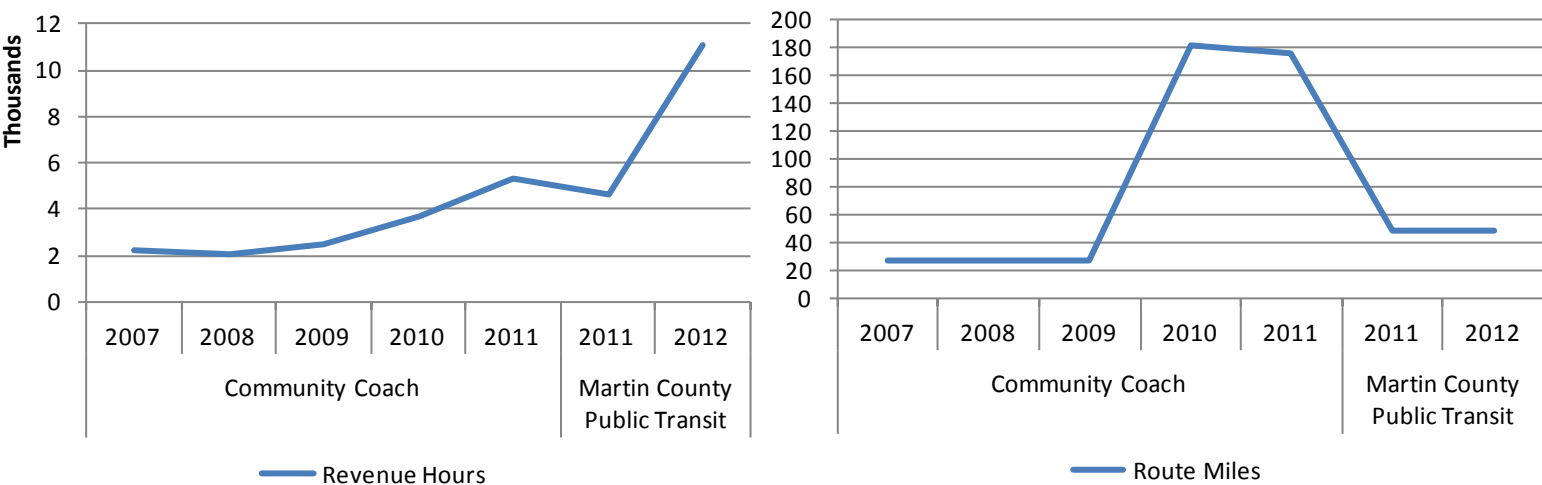




Table 3-1: Effectiveness Measures, Martin County Public Transit - Fixed Route Trend Analysis

Performance Measures	Council on Aging of Martin County, Inc. – Community Coach						Martin County Public Transit (MCPT)		
	2007	2008	2009	2010	2011	% Change 2007-2011	2011	2012	% Change 2011-2012
Service Supply									
Vehicle Miles per Capita	0.25	0.3	0.37	0.59	0.71	181%	0.53	1.02	93%
Service Consumption									
Passenger Trips per Capita	0.14	0.17	0.08	0.03	0.07	-55%	0.15	0.46	207%
Passenger Trips per Revenue Mile	0.8	0.98	0.37	0.07	0.11	-86%	0.33	0.52	56%
Passenger Trips per Revenue Hour	9.02	11.52	4.59	1.27	1.68	-81%	4.81	6.04	26%
Quality of Service									
Average Age of Fleet (in years)	5	5	4.75	4.75	4.2	-16%	2.8	2.8	0%
Average Headway (in minutes)	142.3	137.1	64.4	147.9	172.4	21%	48.7	48.7	0%
Number of Vehicle System Failures	-	-	-	5	12	-	9	4	-56%
Revenue Miles Between Failures	-	-	-	13,455.6	6,817.7	-	7,626.3	32,530.5	327%
Availability									
Weekday Span of Service (in hours)	8	8	10	10	10	23%	11	11	0%

Figure 3-8: Total Operating Expense (in 000s)

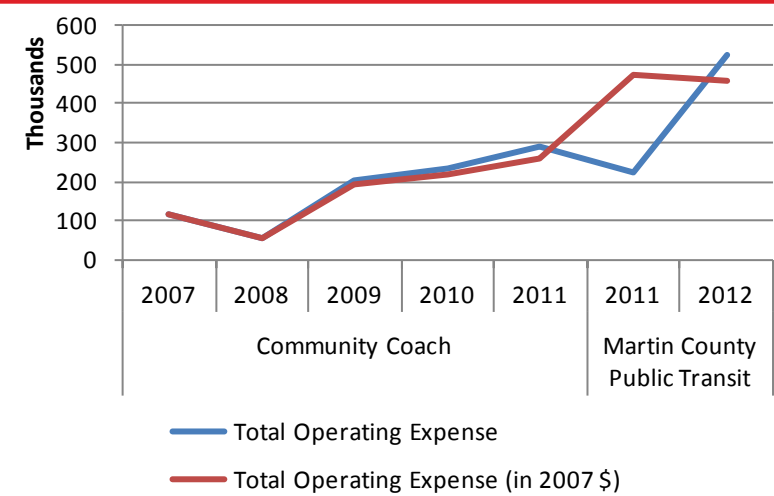


Figure 3-9: Vehicles Operated in Max. Service

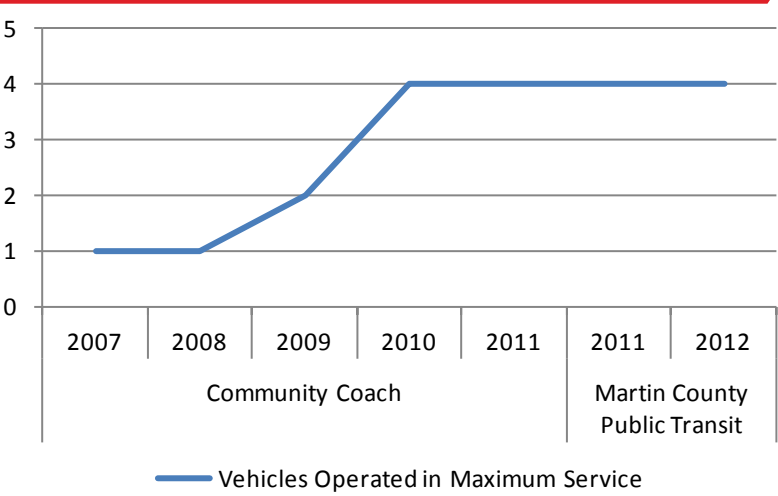


Figure 3-10: Vehicle Miles per Capita

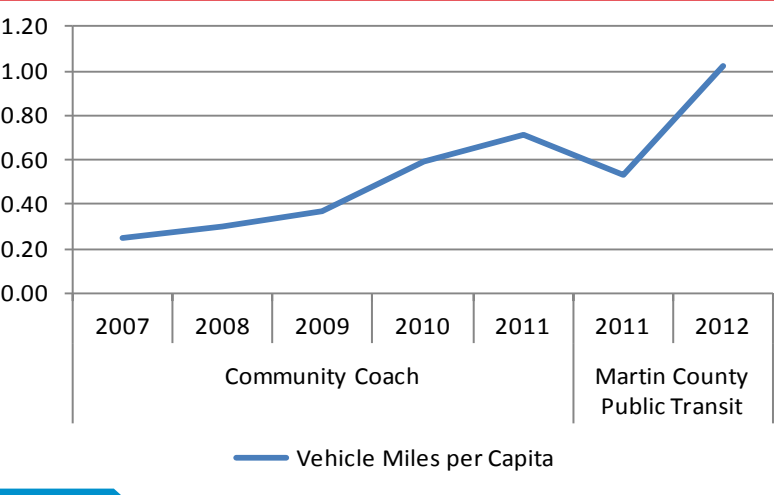


Figure 3-11: Passenger Trips per Capita

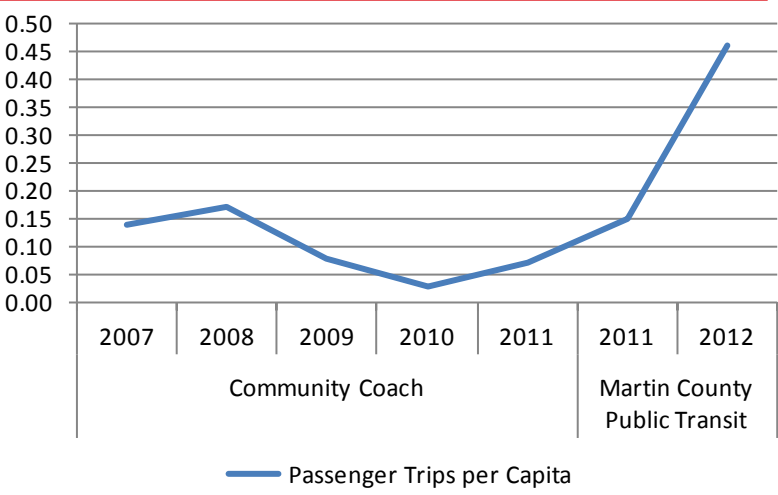


Figure 3-12: Passenger Trips per Revenue Mile

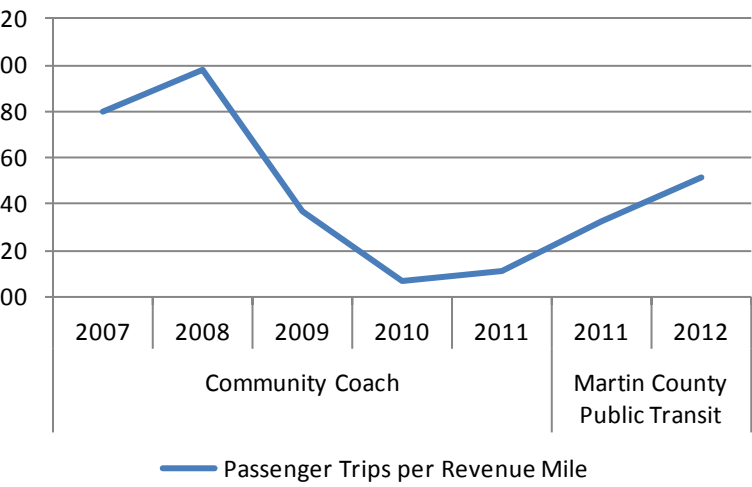


Figure 3-13: Passenger Trips per Revenue Hour

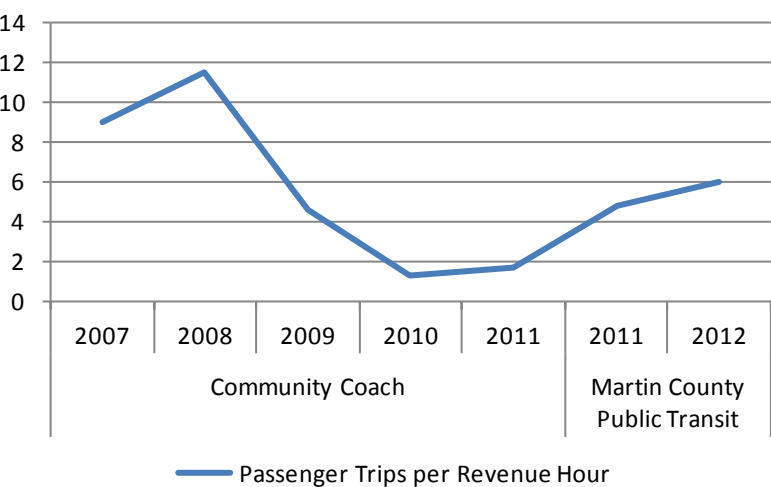


Figure 3-14: Average Age of Fleet (in years)

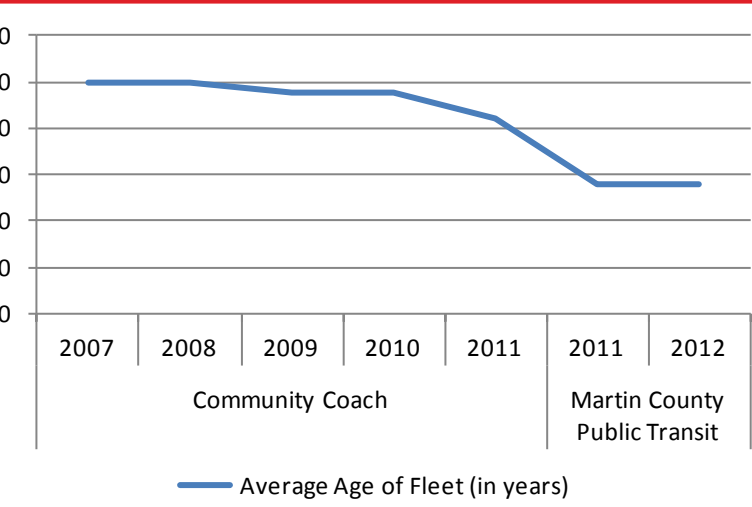
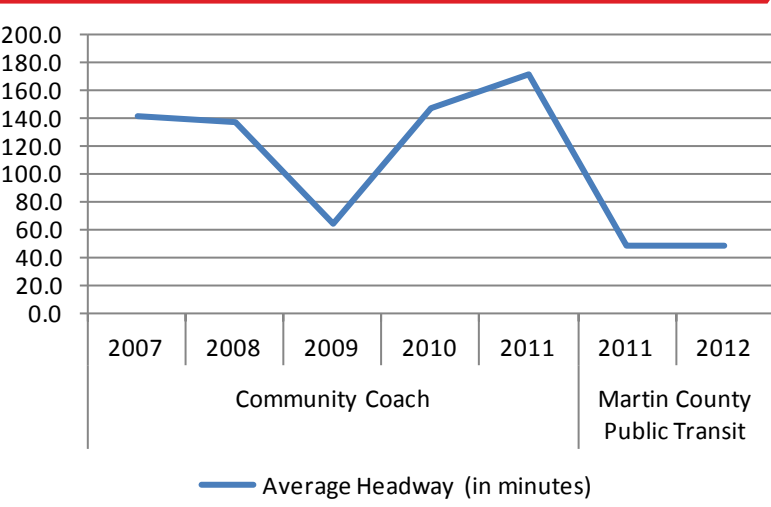


Figure 3-15: Average Headway (in minutes)



Effectiveness Measures

Table 3-1 presents the four different categories of effectiveness measures - service supply, service consumption, quality of service, and availability (of service) for MPCT and COAMC. In general, effectiveness indicators are intended to measure how successful transit service is at achieving its goals. Summary of trends for key effectiveness measures follows.

- » For MCPT, vehicles miles per capita increased by 93 percent from 0.53 in FY 2011 to 1.02 in FY 2012. During the same period passenger trips per capita increased more than 200 percent, from 0.15 in FY 2011 to 0.46 in FY 2012. Conversely, for COAMC vehicle miles per capita increased by 181 percent, from 0.25 in FY 2007 to 0.71 in FY 2011 and passenger trips per capita decreased by 55 percent 0.14 in FY 2007 to 0.07

in FY 2011 (Figures 3-10 and 3-11). For MCPT, the numbers indicate that ridership increased at higher rate compared to overall county population growth rate.

- » Passenger trips per revenue mile and passenger trips per revenue hour exhibit the same upward trend for MCTP, increasing by 56 percent (from 0.33 in FY 2011 to 0.52 in FY 2012) and 26 percent (from 4.81 in FY 2011 to 6.04 in FY 2012) respectively. Overall, this indicates improved transit productivity for MCTP. On the other hand, both these variables were on a downward trajectory for COAMC from FY 2007 to FY 2011 (Figures 3-12 and 3-13).
- » MCPT's average age of fleet remained constant at 2.8 years in FY 2011 and FY 2012, while COAMC's average age of fleet is decreased by 16 percent from 5 years in FY 2007 to 4.2 years in FY 2011 (Figure 3-14).



Figure 3-16: Number of Vehicle System Failures

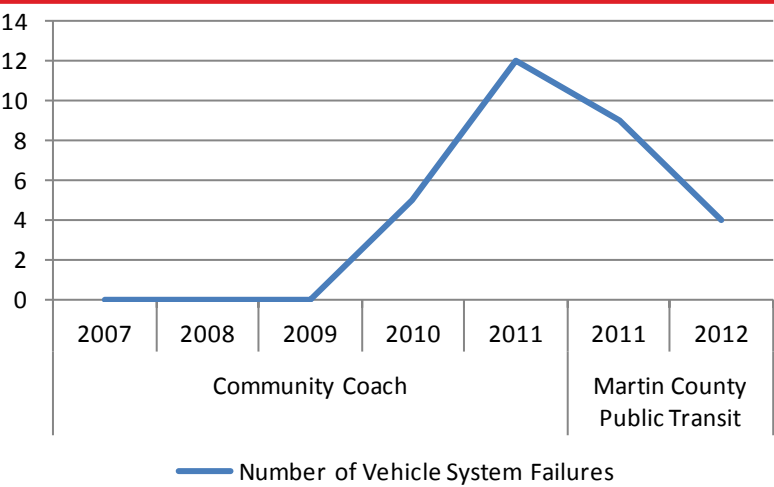


Figure 3-17: Revenue Miles between Failures

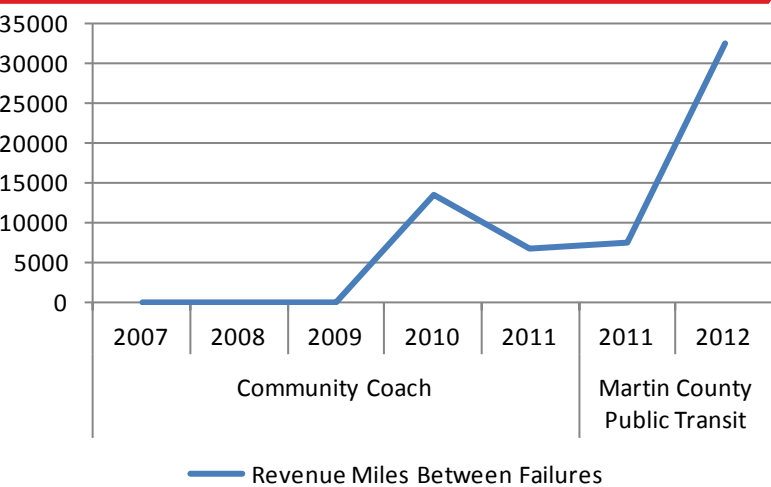
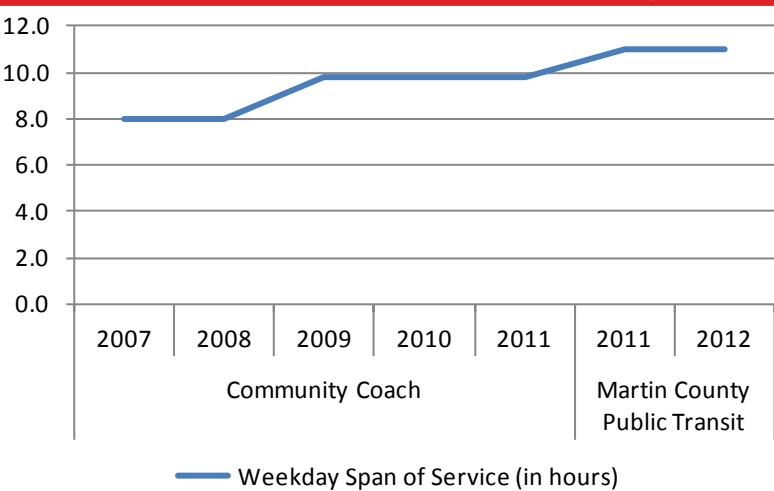


Figure 3-18: Weekday Span of Service (in hours)



» For MCPT, the span of service remained unchanged at 11 hours from FY 2011 to FY 2012, but it increased by one (1) hour after Martin County took over the operations responsibility from COAMC (Figure 3-18).

Efficiency Measures

Table 3-2 presents the six different categories of efficiency measures - cost efficiency, operating ratio vehicle utilization, labor productivity, energy utilization, and passenger fare for MPCT and COAMC. In general, efficiency indicators are intended to measure how well an agency can maximize outputs and minimize inputs. Summary of trends for key efficiency measures follows.

- » Operating expense per capita increased from \$1.54 in FY 2011 to \$3.58 in FY 2012, an increase of 133 percent for MCPT, while it increased from \$0.86 in FY 2007 to \$2.10 in FY 2011 for COAMC. After adjusting for inflation, the increase in operating expense per capita is about 127 percent and 120 percent for MCPT and COAMC respectively. However, the operating expense per passenger trip decreased by 23 per for MCTP over a two-year period while it increased by 440 percent for COAMC over five years, without adjusting for inflation. This suggests that MCPT eliminated bus routes with low productivity level in recent past (Figures 3-19 and 3-20).
- » Operating expense per passenger mile miles also exhibit a downward trend for MCPT form FY 2011 and FY 2012 indicating improvement in operational efficiency over time that can be attributed to

elimination of unproductive transit service. However, operating expense per revenue mile increased by approximately 23 percent from \$3.28 in FY 2011 to \$4.02 in FY 2012, which can be attributed to increase in service supply (Figures 3-21 and 3-22).

- » For MCTP, operating expense per revenue hour decreased marginally by 3 percent from FY 2011 to

FY 2012, which could have resulted from changes in a variety of cost elements, such as, wages, fuel cost, fuel efficient vehicles, etc. in conjunction with contractual arrangements with the vendor responsible for day-to-day operations . Since MCPT provided fare free service until recent past the farebox recovery or operating ratio is not an appropriate variable for current trend analysis (Figures 3-23 and 3-24).

Table 3-2: Efficiency Measures, Martin County Public Transit - Fixed Route Trend Analysis

Performance Measures	Council on Aging of Martin County, Inc. – Community Coach						Martin County Public Transit (MCPT)		
	2007	2008	2009	2010	2011	% Change 2007-2011	2011	2012	% Change 2011-2012
Cost Efficiency									
Operating Expense Per Capita	\$0.86	\$0.41	\$1.45	\$1.71	\$2.10	144%	\$1.54	\$3.58	133%
Operating Expense Per Capita (in 2007\$)	\$0.86	\$0.40	\$1.38	\$1.58	\$1.90	120%	\$1.39	\$3.15	127%
Operating Expense Per Passenger Trip	\$5.94	\$2.41	\$17.78	\$50.91	\$32.08	440%	\$10.09	\$7.79	-23%
Operating Expense Per Passenger Trip (in 2007\$)	\$5.94	\$2.35	\$16.89	\$47.14	\$28.95	387%	\$9.11	\$6.85	-25%
Operating Expense Per Passenger Mile	\$1.46	\$0.58	\$2.42	\$6.40	\$4.60	215%	\$3.06	\$2.14	-30%
Operating Expense Per Passenger Mile (in 2007\$)	\$1.46	\$0.57	\$2.30	\$5.93	\$4.15	184%	\$2.76	\$1.88	-32%
Operating Expense Per Revenue Mile	\$4.74	\$2.37	\$6.55	\$3.50	\$3.54	-25%	\$3.28	\$4.02	23%
Operating Expense Per Revenue Mile (in 2007\$)	\$4.74	\$2.31	\$6.22	\$3.24	\$3.19	-33%	\$2.96	\$3.54	19%
Operating Expense Per Revenue Hour	\$53.53	\$27.78	\$81.70	\$64.42	\$53.98	1%	\$48.55	\$47.02	-3%
Operating Expense Per Revenue Hour (in 2007\$)	\$53.53	\$27.08	\$77.61	\$59.65	\$48.71	-9%	\$43.81	\$41.36	-6%
Operating Ratio									
Farebox Recovery (%)	4.15%	11.93%	0.29%	1.15%	2.38%	-43%	0.0%	0.0%	-
Vehicle Utilization									
Revenue Miles Per Vehicle Mile	0.71	0.58	0.6	0.83	0.83	17%	0.89	0.87	-2%
Labor Productivity									
Revenue Hours Per Employee (FTE)	847	641	656	1,135	1,004	18%	-	-	-
Energy Utilization									
Vehicle Miles Per Gallon	13.92	0.69	11.31	8.05	7.93	-43%	16.97	8.4	-50%
Fare									
Average Fare	\$0.25	\$0.29	\$0.05	\$0.59	\$0.76	204%	\$0.00	\$1.50	-





Figure 3-19: Operating Expense per Capita

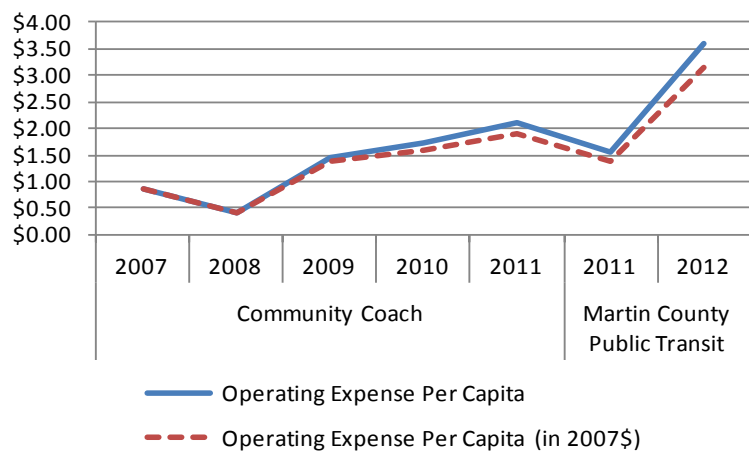


Figure 3-20: Operating Expense per Passenger Trip

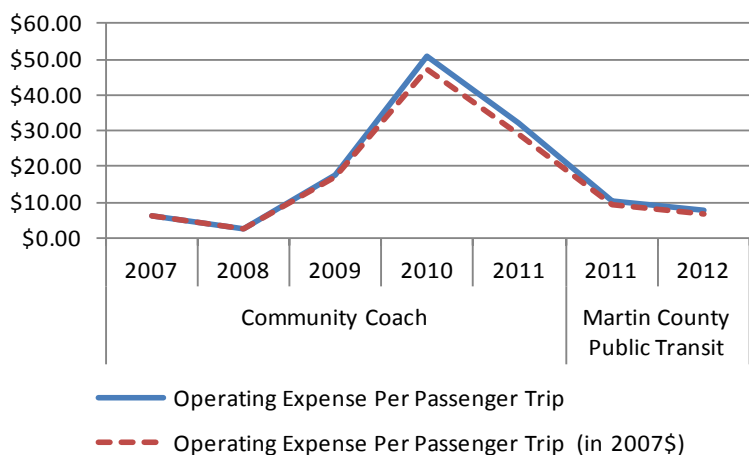


Figure 3-21: Operating Expense per Passenger Mile

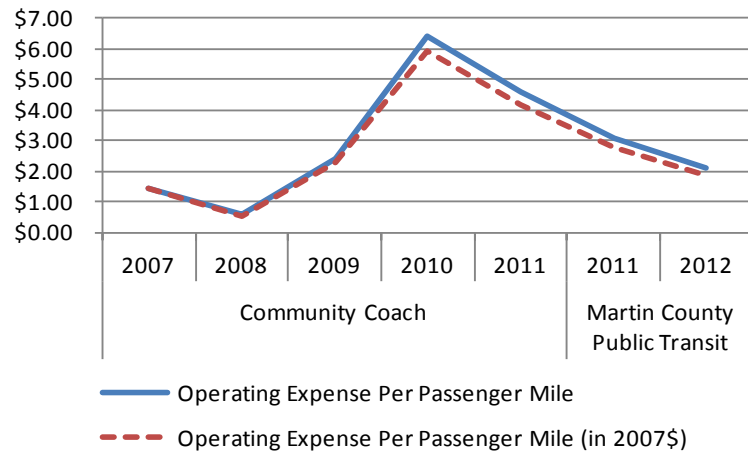


Figure 3-22: Operating Expense per Revenue Mile

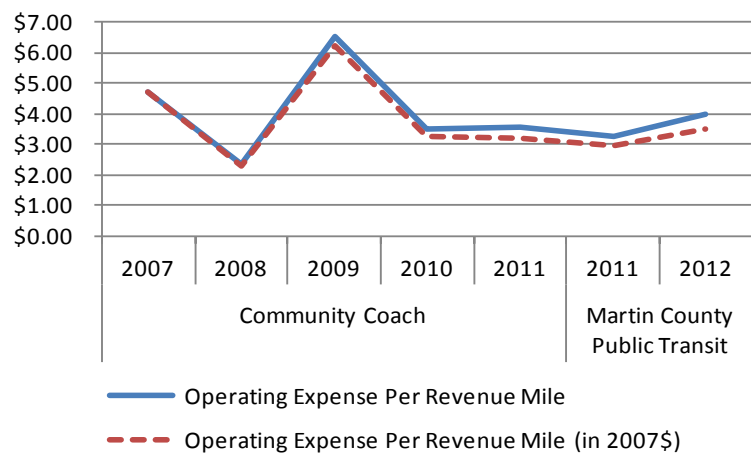


Figure 3-23: Operating Expense per Revenue Hour

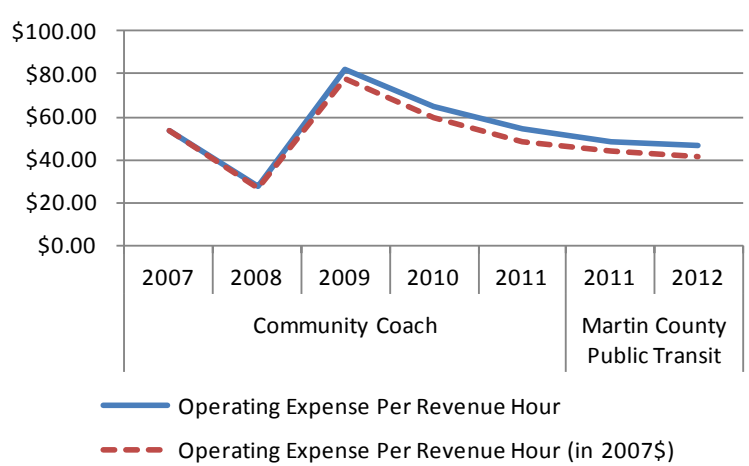


Figure 3-24: Farebox Recovery

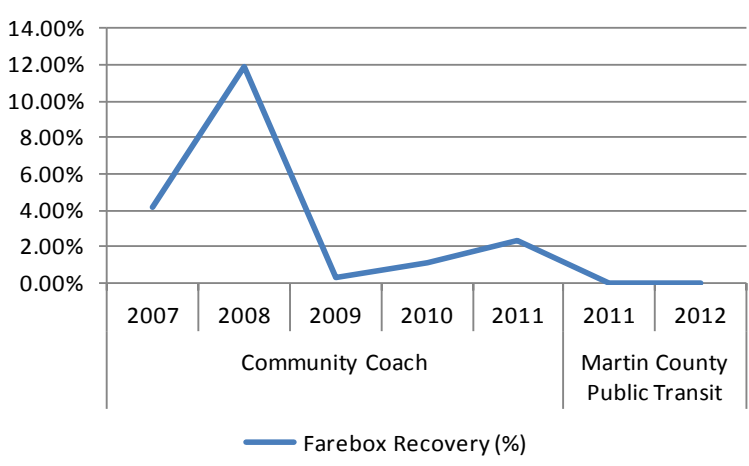


Figure 3-25: Revenue Miles per Vehicle Mile

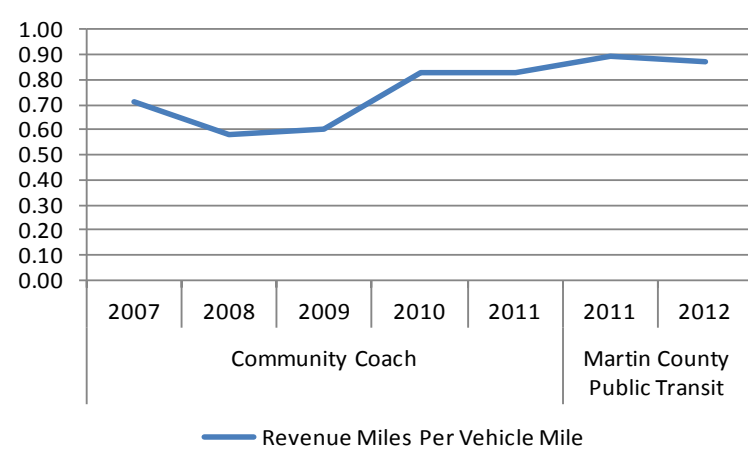


Figure 3-26: Revenue Miles per Employee (FTE)

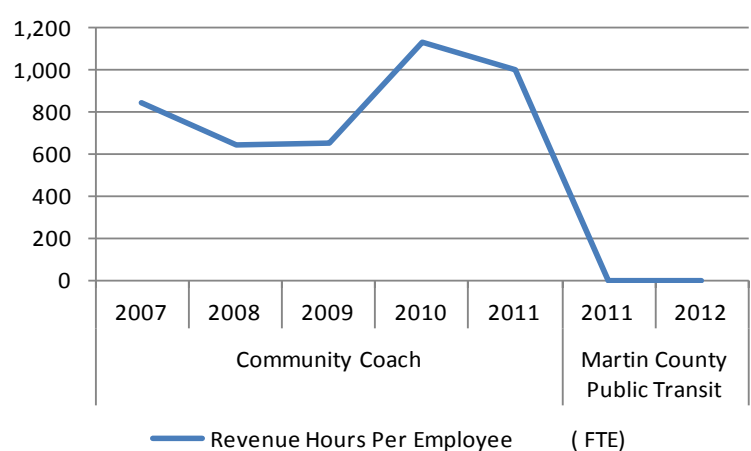


Figure 3-27: Vehicle Miles per Gallon

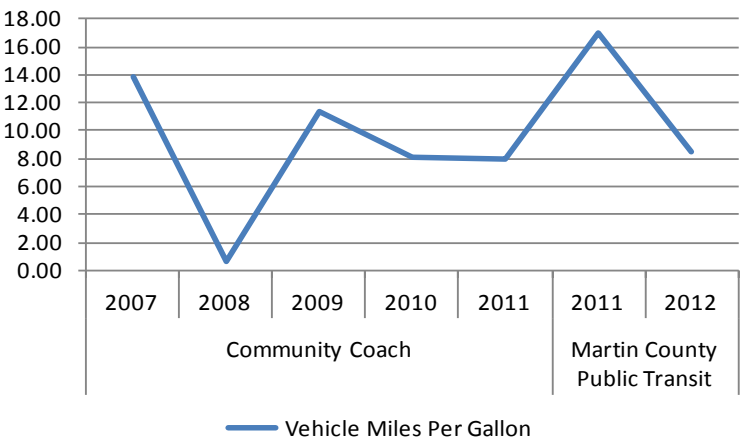
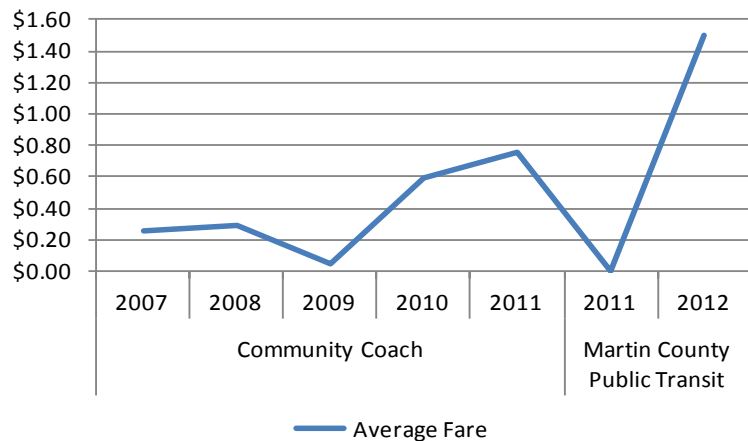


Figure 3-28: Average Fare





- » Revenue miles per vehicle decreased slightly by 2 percent from 0.87 in FY 2011 to 0.87 in FY 2012 for MCTP. Since MCTP contracts day-to-day operations to vendor through competitive bidding process, the County does not have employees that are dedicated to run daily operations (Figures 3-25 and 3-26).
- » Vehicle miles per gallon decreased by 50 percent between FY 2011 and FY 2012 for MCTP. Martin County instituted a \$1.50 fare for one-way trip in recent past (Figures3-27 and 3-28).

Trend Analysis Summary

The results of trend analysis in conjunction with peer review analysis will help identify strengths and weaknesses of MCPT, which will serve as one of the key inputs in developing future transit development alternatives. A summary of the trend analysis for MCTP follows (Table 3-3):

- » **General Performance:** Overall performance of the MCPT services for passenger trips, passenger miles, vehicle miles, and revenue miles is on upward trajectory. The operating expense is also increasing,

which is one of the key areas that transit agencies seek to maintain as they grow and improve transit services.

- » **Service Supply and Availability:** In the past two years, the MCPT has increased transit service in terms of vehicles miles per capita while maintaining the span of service.
- » **Service Consumption:** All three indicators - passenger trips per capita, passenger trips per revenue mile and revenue hour exhibit a strong demand for transit in Martin County.
- » **Quality of Service:** The number of vehicle system failures and revenue miles between failures indicates improvement in the quality of transit service, which could be attributed to the new fleet which probably requires less maintenance.
- » **Cost Efficiency:** Operating expense per passenger trip and operating expense per passenger mile decreased over the past years while the operating expense per revenue mile increased and the operating expense per revenue hour slightly decreased.

3.2 FIXED ROUTE PEER REVIEW ANALYSIS

Peer review analysis is used for benchmarking purposes as well as to assess the target agency’s strengths and weaknesses compared to transit systems in geographic areas with similar characteristics. Peer review analysis in conjunction with trend analysis will inform develop strategies for future transit development in Martin County.

Data from 2011 NTD was used to conduct the peer review analysis for MCPT’s fixed route bus service and all selected peers. Peer agencies were identified based on the methodology described in the *Transit Cooperative Research Project (TCRP) Report 141 - “A Methodology for Performance Measurement and Peer Comparison in the Public Transportation Industry.”* This methodology uses a two-step process – screening and peer-grouping. The intent is to identify transit agencies that are similar to Martin County Public Transit, which is determined by likeliness score.

The screening step includes three factors (*Rail, Rail Only, and Heavy Rail*) to ensure that potential peers operate a similar mix of modes as the target agency. The peer-grouping step takes into account five service characteristics (*Total Vehicle Miles Operated, Total Operating Budget, Percent Demand Response, Percent Service Purchase, and Service Area Type*) and nine urban area characteristics (*Urban Area Population, Population Growth Rate, Population Density, State Capital, Percent Population with College Degree, Percent Poverty, Annual Delay per Traveler, Freeway Lane-Miles per Capita, and Distance*) to identify candidate agencies that are potential matches for the target agency. As mentioned above, the potential matches are determined based on the likeliness score, which is calculated using the following formula:

Total likeliness score =

Sum (screening factor scores)

+

Sum (peer grouping scores)

Count (peer grouping factors)

Table 3-3: Summary of Trend Analysis, Martin County Public Transit

Performance Measures	COAMC - Community Coach % Change (2007-2011)	Trend	MCTP % Change (2011-2012)	Trend
General Performance				
Passenger Trips	-55%	Decrease	201%	Increase
Passenger Miles	-23%	Decrease	233%	Increase
Vehicle Miles	181%	Increase	94%	Increase
Revenue Miles	227%	Increase	90%	Increase
Total Operating Expense	144%	Increase	132%	Increase
Revenue Hours	142%	Increase	140%	Increase
Route Miles	555%	Increase	0%	No change
Vehicles Operated in Maximum Service	300%	Increase	0%	No change
Service Supply				
Vehicle Miles per Capita	181%	Increase	93%	Increase
Service Consumption				
Passenger Trips per Capita	-55%	Decrease	207%	Increase
Passenger Trips per Revenue Mile	-86%	Decrease	56%	Increase
Passenger Trips per Revenue Hour	-81%	Decrease	26%	Increase
Quality of Service				
Average Age of Fleet (in years)	-16%	Decrease	0%	No change
Average Headway (in minutes)	21%	Increase	0%	No change
Number of Vehicle System Failures	na	na	-56%	Decrease
Revenue Miles Between Failures	na	na	327%	Increase
Availability				
Weekday Span of Service (in hours)	23%		0%	
Cost Efficiency				
Operating Expense Per Capita	144%	Increase	133%	Increase
Operating Expense Per Passenger Trip	440%	Increase	-23%	Decrease
Operating Expense Per Passenger Mile	215%	Increase	-30%	Decrease
Operating Expense Per Revenue Mile	-25%	Decrease	23%	Increase
Operating Expense Per Revenue Hour	1%	Increase	-3%	Decrease
Operating Ratio				
Farebox Recovery (%)	-43%	Decrease	na	na
Vehicle Utilization				
Revenue Miles Per Vehicle Mile	17%	Increase	-2%	Decrease
Labor Productivity				
Revenue Hours Per Employee ( FTE)	18%	Increase	-	na
Energy Utilization				
Vehicle Miles Per Gallon	-43%		-50%	Decrease
Fare				
Average Fare	204%	Increase	na	na



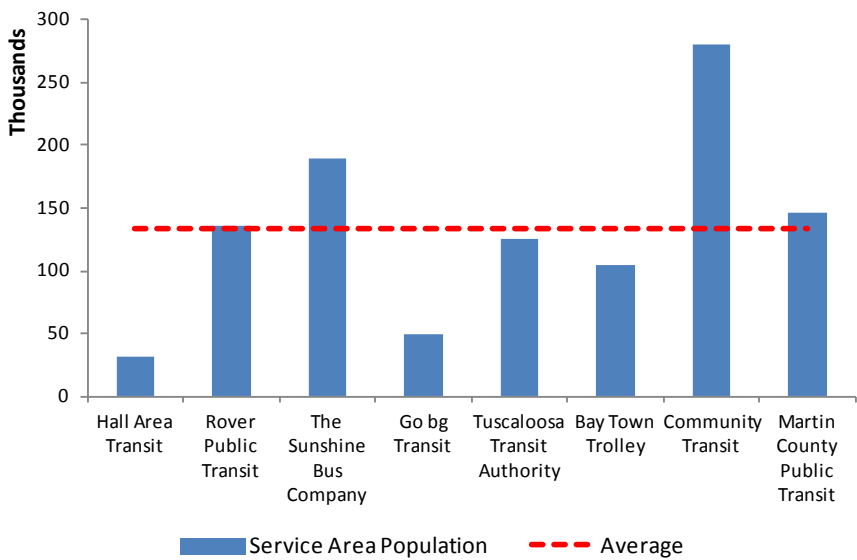
Table 3-4: Selected Transit Systems for Peer Review Analysis

NTD ID	Transit System	Agency Name	Location
4144	Hall Area Transit	Hall Area Transit	Gainesville, GA
4186	Rover Public Transit	City of Murfreesboro	Murfreesboro, TN
4155	The Sunshine Bus Company	St Johns County, Florida, Board of County Commissioners	St. Augustine, FL
4184	Go bg Transit	The City of Bowling Green/Community Action of Southern Kentucky	Bowling Green, KY
4045	Tuscaloosa Transit Authority	Tuscaloosa County Parking and Transit Authority	Tuscaloosa, AL
4185	Bay Town Trolley	Bay County Transportation Planning Organization	Pensacola, FL
4097	Community Transit	Council on Aging of St. Lucie, Inc.	Fort Pierce, FL

Table 3-5: Performance Indicators, Martin County Public Transit Peer Review Analysis

Performance Indicators	Martin County Public Transit (MCPT)	Peer Group Minimum	Peer Group Maximum	Peer Group Range	Peer Group Mean	MCPT % from Mean
Service Area Population	146,000	31,782	280,379	248,597	133,076	9.7%
Service Area Population Density (persons per square mile)	263	263	3,333	3,071	1,172	-77.6%
Unlinked Passenger Trips	34,237	22,300	776,000	753,700	238,025	-85.6%
Revenue Miles	132,400	68,600	623,900	555,300	306,650	-56.8%
Total Operating Expense	566,163	225,301	2,850,940	2,625,639	1,139,320	-50.3%
Passenger Fare Revenue	14,990	55,710	511,778	456,068	158,976	-90.6%
Vehicle Operated in Max. Service	10	4	15	11	8	23.1%

Figure 3-29: Service Area Population (in 000s)



A lower likeliness score for a peer system indicates that it is a better match to the target agency. In general, a total likeliness score under 0.50 indicates a good match, between 0.50 and 0.74 represents a satisfactory match, and between 0.75 and 0.99 represents a potential match that may be used with additional investigation to determine major differences that may make them unsuitable. Scores beyond 0.99 are considered undesirable; however, in some cases they may be the only candidates available to fill out a peer group.

Using the above methodology, a long list of initial candidates for peer review analysis was identified. The project steering committee members recommended considering total operating cost, service area density, and percentage of service purchased vs. directly operated to shortlist the agencies for this analysis. Table 3-4 shows transit agencies or systems selected for performing the fixed route peer group analysis for MCPT.

Figure 3-30: Service Area Population Density (persons per square mile)

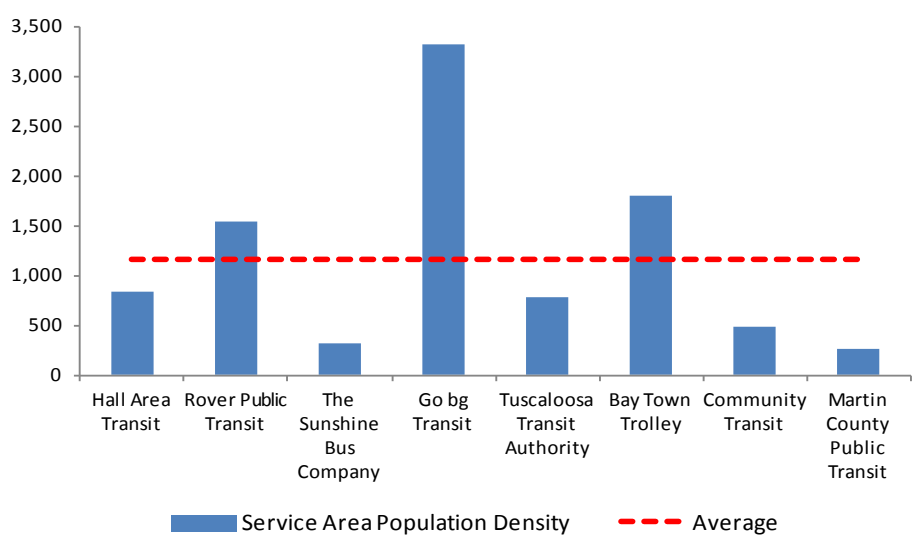


Figure 3-31: Unlinked Passenger Trips (in 000s)

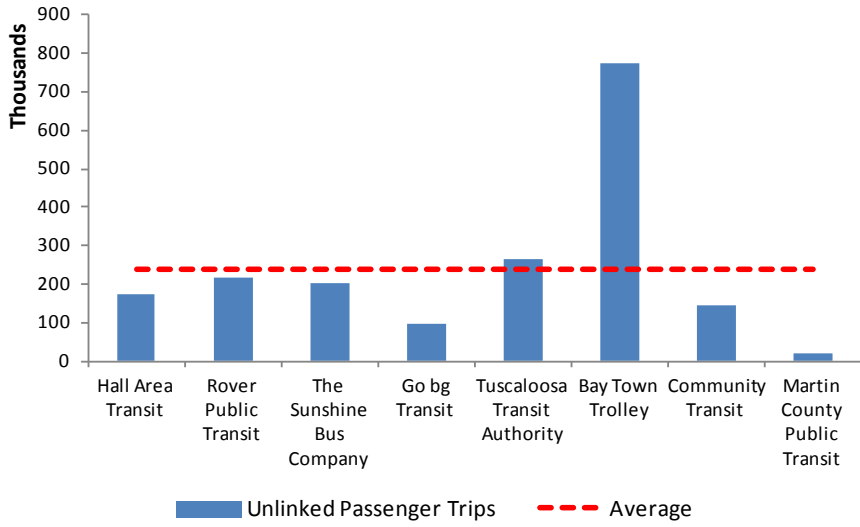






Figure 3-32: Revenue Miles (in 000s)

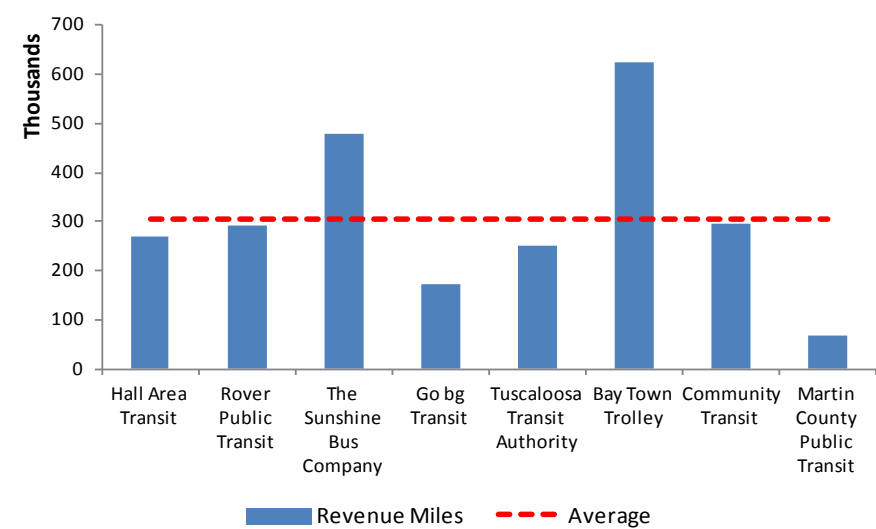


Figure 3-33: Total Operating Expense

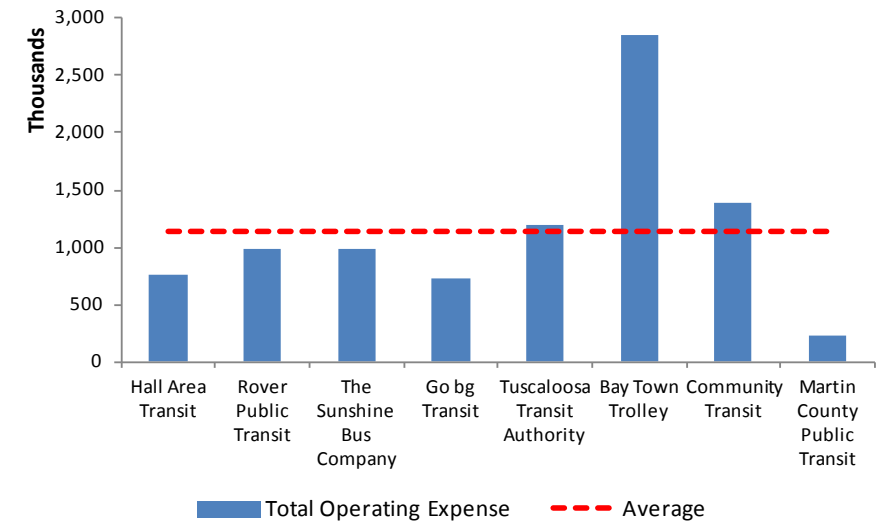


Figure 3-34: Average Passenger Fare Revenue

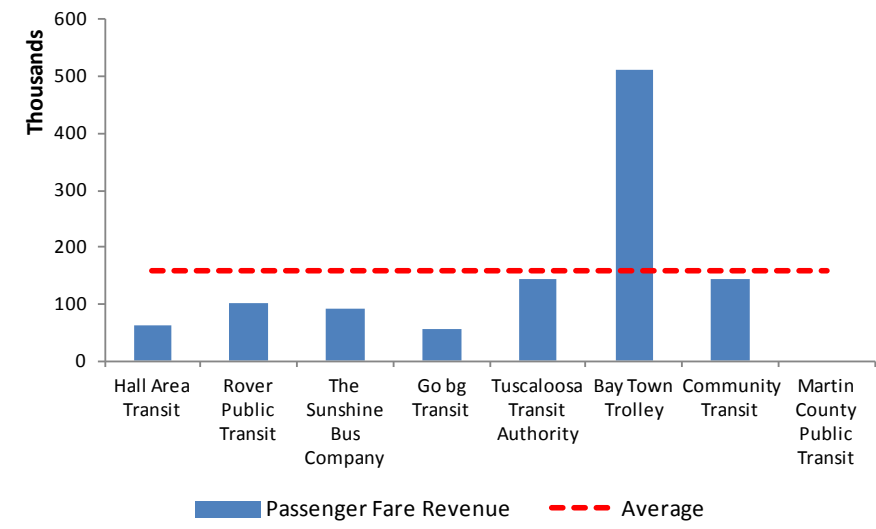


Figure 3-35: Vehicles Operated in Maximum Service

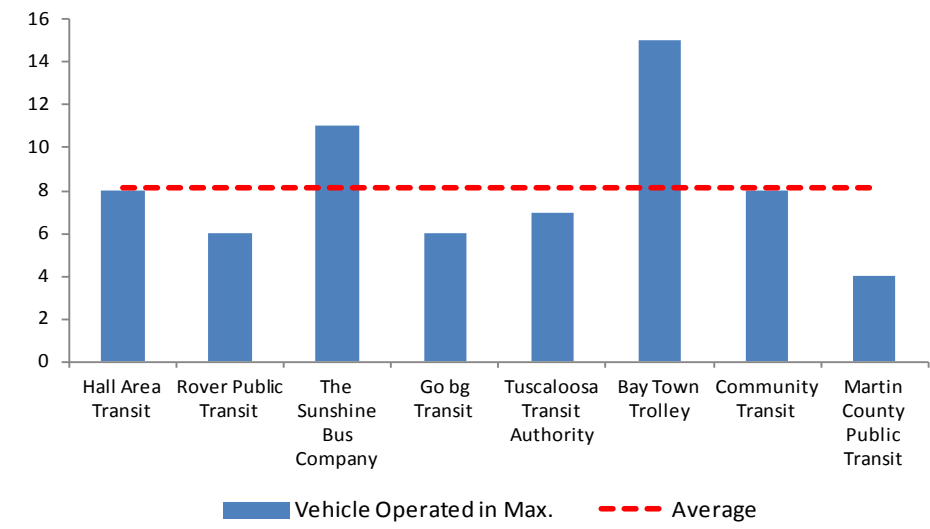


Figure 3-36: Vehicles Miles per Capita

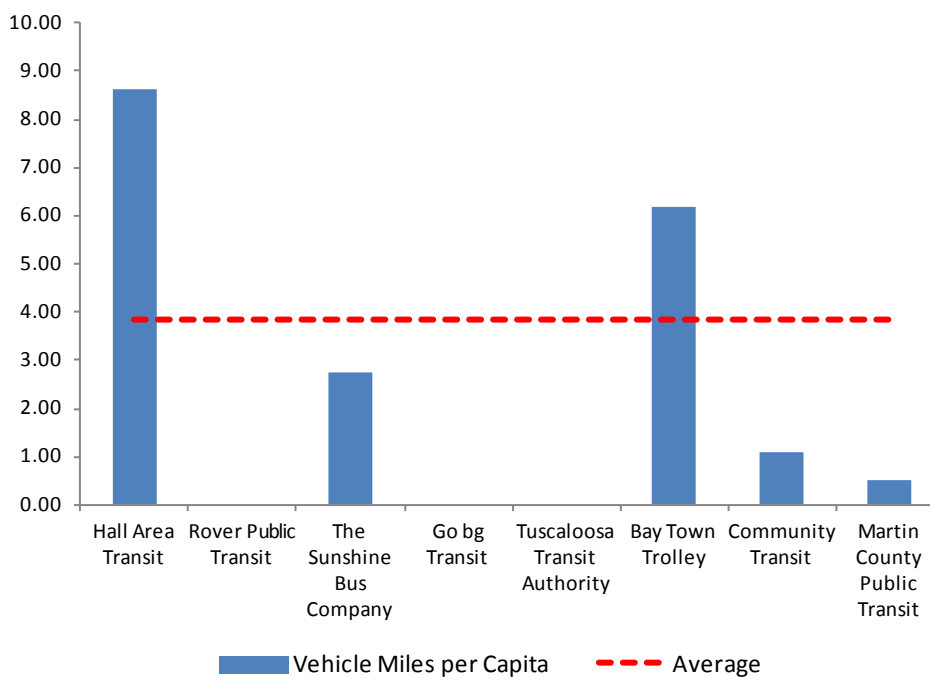


Table 3-6: Effectiveness Measures, Martin County Public Transit Peer Review Analysis

Performance Indicators	Martin County Public Transit (MCPT)	Peer Group Minimum	Peer Group Maximum	Peer Group Range	Peer Group Mean	MCPT % from Mean
Vehicle Miles per Capita	0.53	0.53	8.64	8.11	3.84	-86.3%
Revenue Miles per Capita	0.47	0.47	8.47	8.00	3.26	-85.6%
Revenue Hours per Capita	0.03	0.03	0.66	0.63	0.23	-86.3%
Passenger Trips per Capita	0.15	0.15	7.38	7.22	2.54	-94.0%
Passenger Trips per Revenue Mile	0.33	0.33	1.24	0.92	0.69	-52.7%
Passenger Trips per Revenue Hour	4.85	4.85	19.35	14.50	10.11	-52.1%
Average Age of Fleet (in years)	2.80	1.90	6.60	4.70	4.04	-30.7%



Figure 3-37: Revenue Miles per Capita

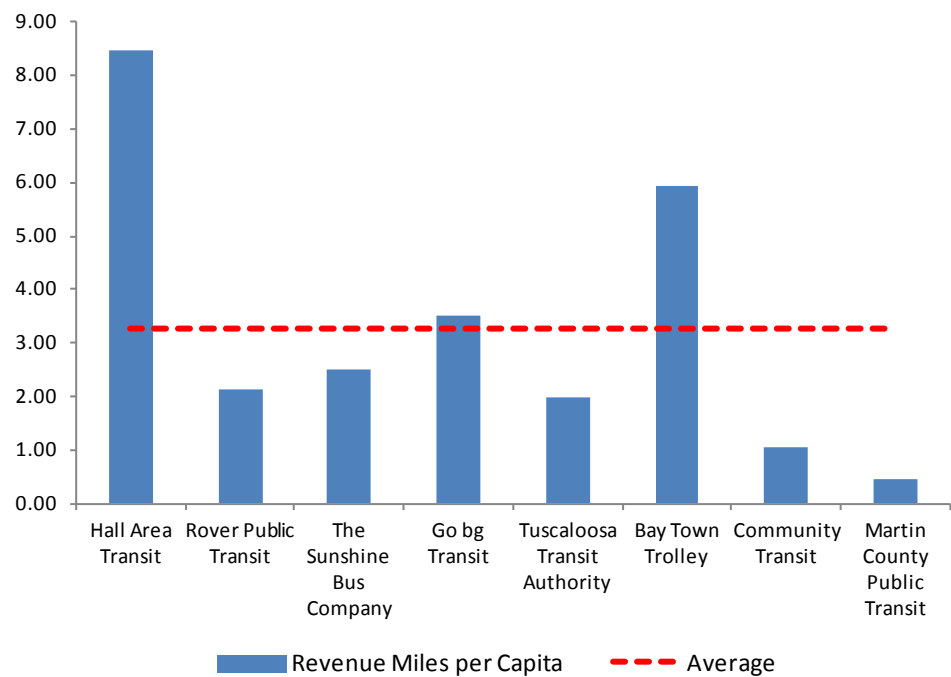
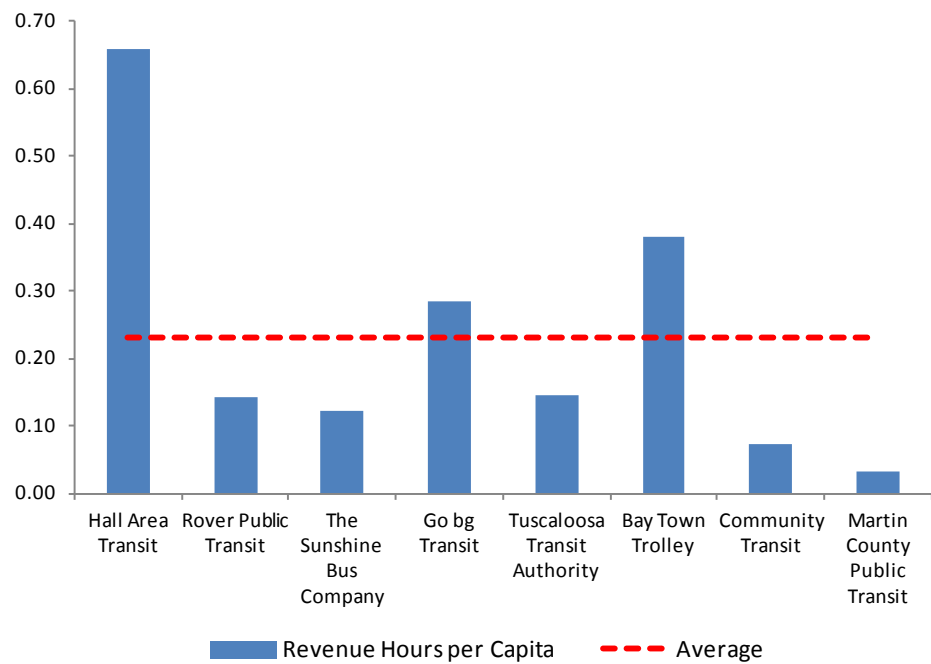


Figure 3-38: Revenue Hours per Capita Operated in Maximum Service



Performance Indicators

Key measures used for comparing and evaluating the general performance of MCPT to selected peer systems are presented in Table 3-5.

Below is a summary of indicators used to compare general performance for the MCPT peer review analysis.

- » The service area population for Martin County is above the mean for the peer group, while service area

population density is significantly below the mean (Figures 3-29 and 3-30). Both these indicators suggest that the population is spread out in the urban area and generally difficult for transit agency to serve the entire population which could result in lower productivity levels.

- » Unlinked passenger trips for MCPT is substantially lower than the mean for peer group and is more or less comparable to the difference observed in the service area population density (Figure 3-31).

Figure 3-39: Passenger Trips per Capita

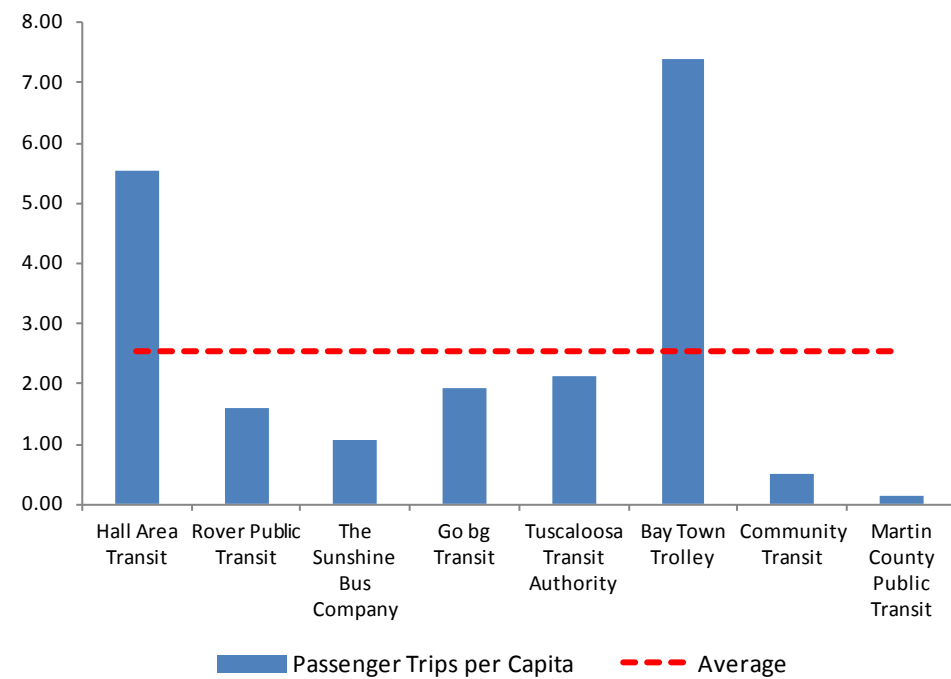


Figure 3-40: Passenger Trips per Revenue Mile

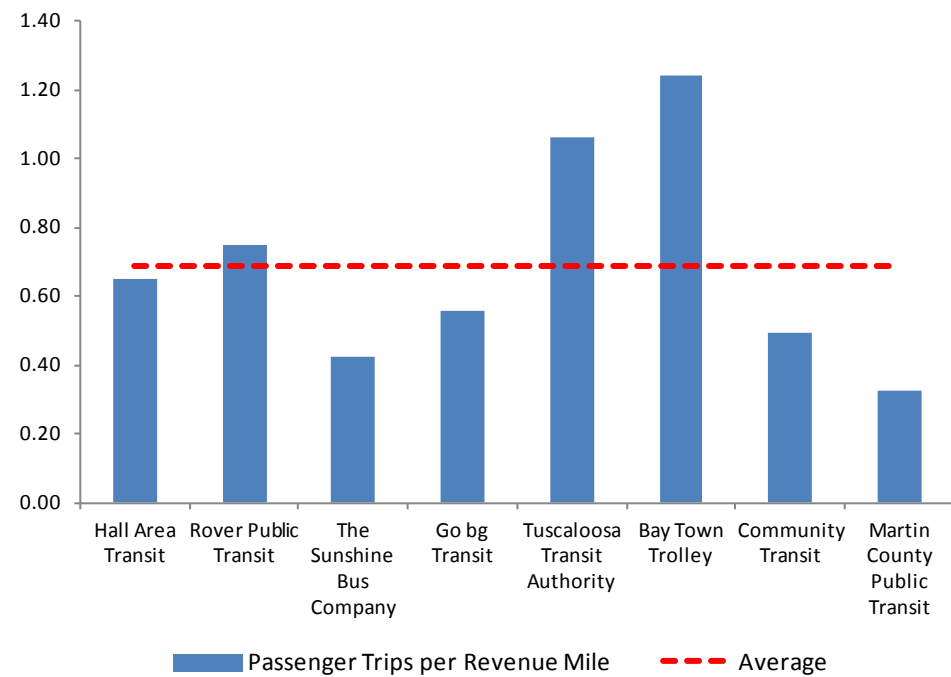




Figure 3-41: Passenger Trips per Revenue Hour

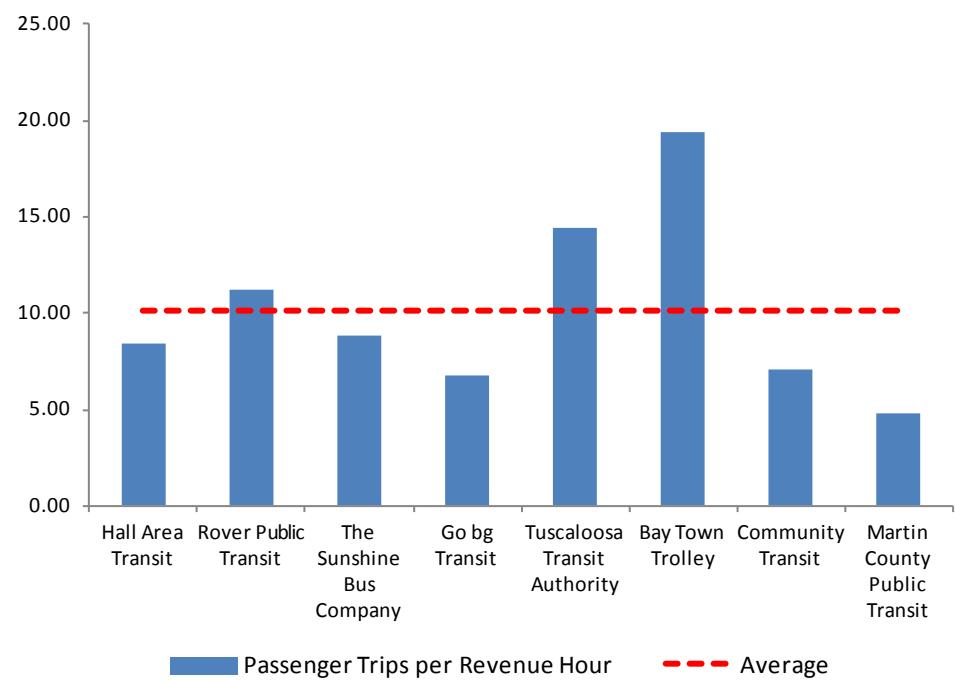
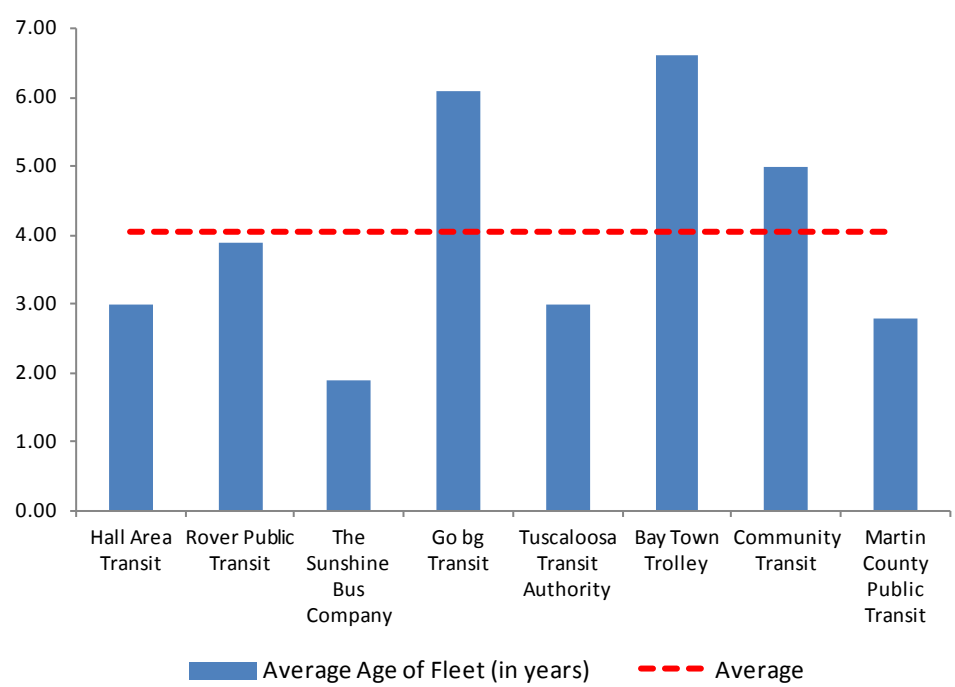


Figure 3-42: Average Age of Fleet



- » Revenue miles and total operating expense for MCPT is about 50 percent lower than the mean for peer group, which indicates that both service supply per capital as well as systemwide supply is lower than peer agencies (Figures 3-32 and 3-33).
- » Passenger fare revenue for MCPT is not comparable to the peer group (Figure 3-34) since MCPT provided

fare free transit until June 2013. Since then Martin County instituted a \$1.50 fare for a one-way trip.

- » Given that MCPT has lower than service supply compared to the peer group, vehicles operated in maximum service for MCPT are also lower than the mean compared to its peer agencies (Figure 3-35).

Figure 3-43: Operating Expense per Capita

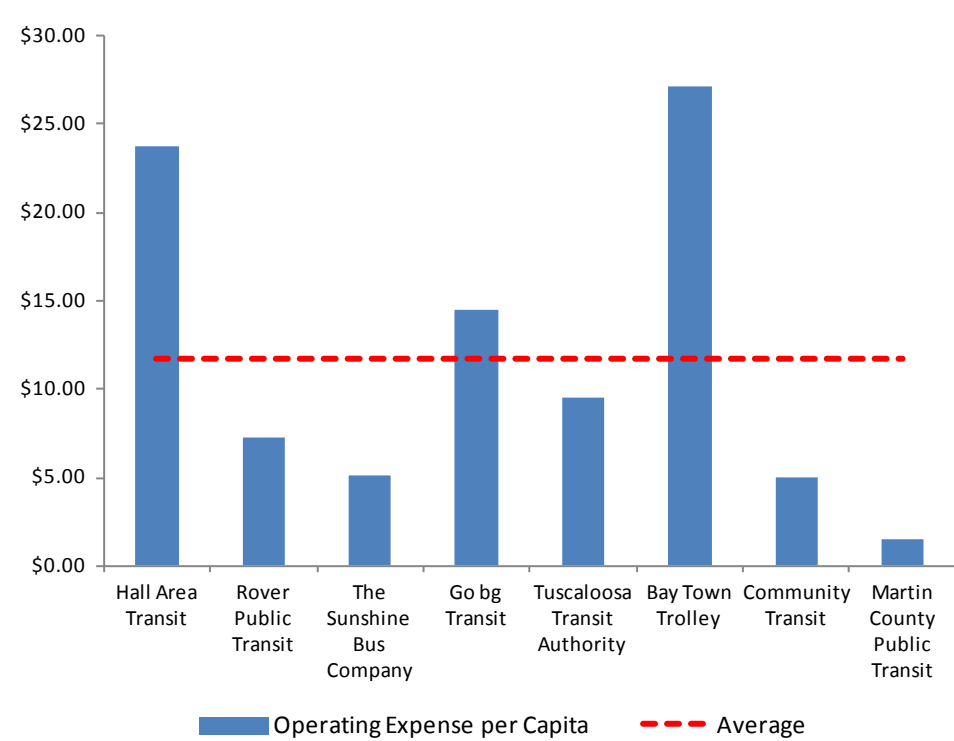


Figure 3-44: Operating Expense per Passenger Trip

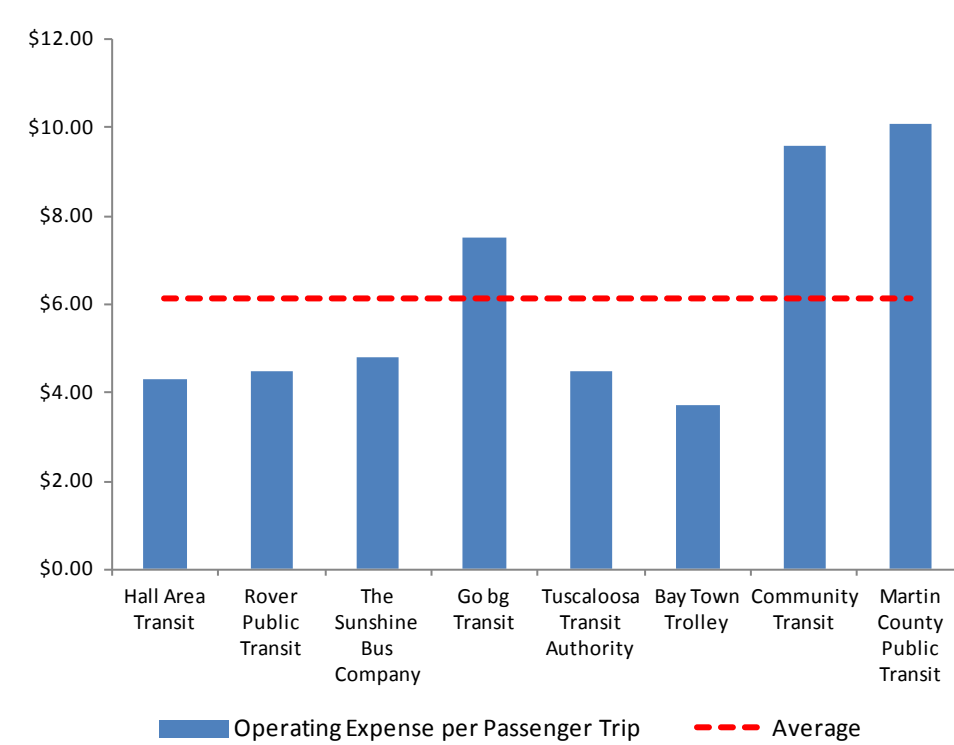






Figure 3-45: Operating Expense per Revenue Mile

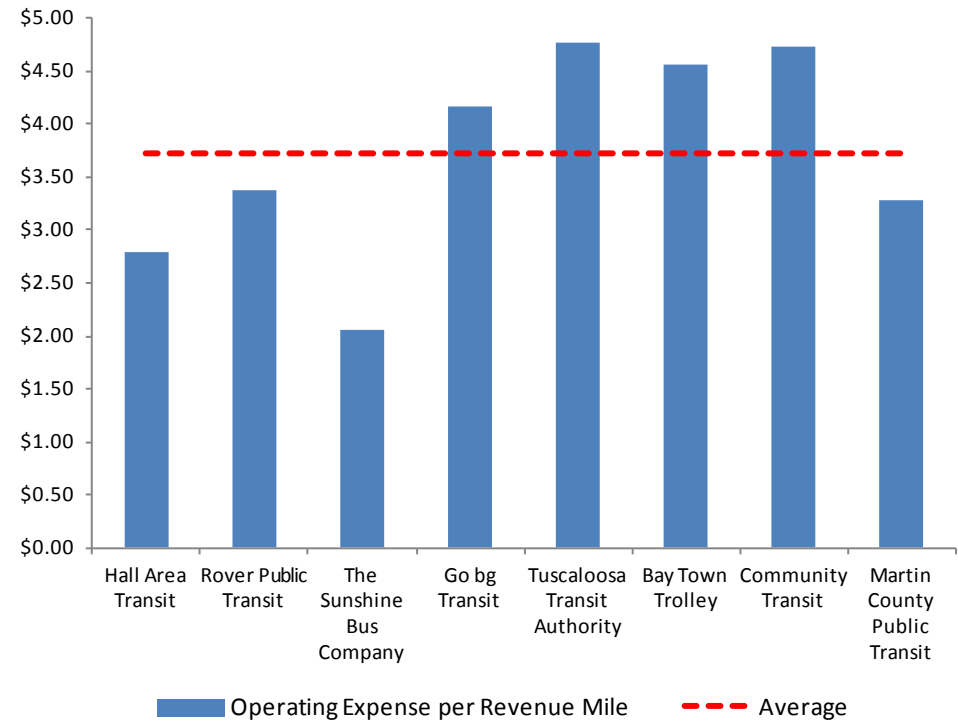


Figure 3-47: Average Fare

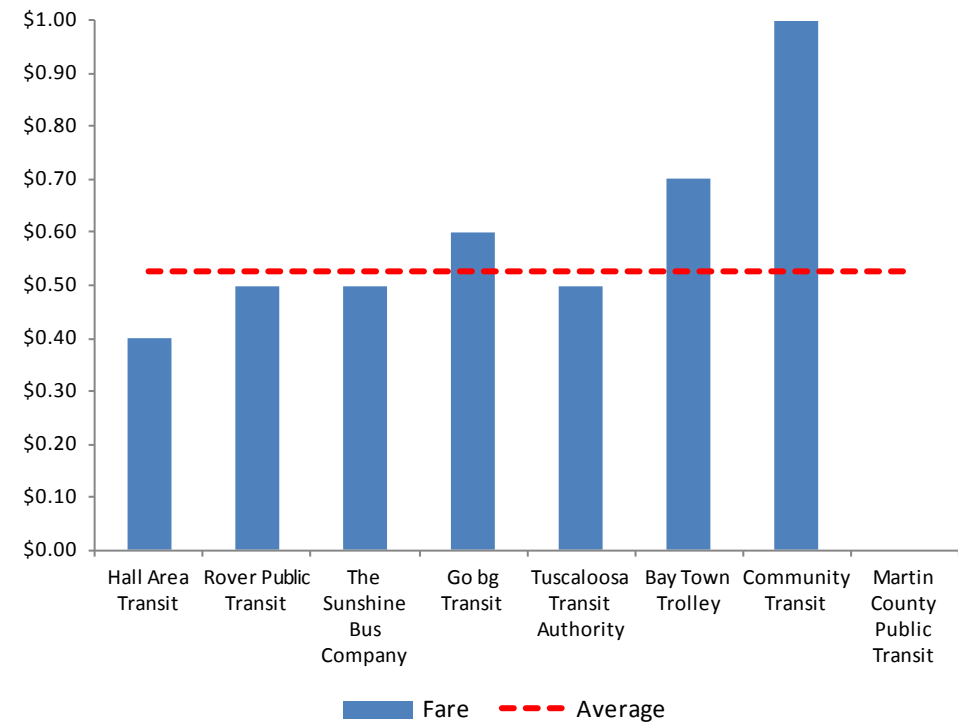


Figure 3-46: Farebox Recovery

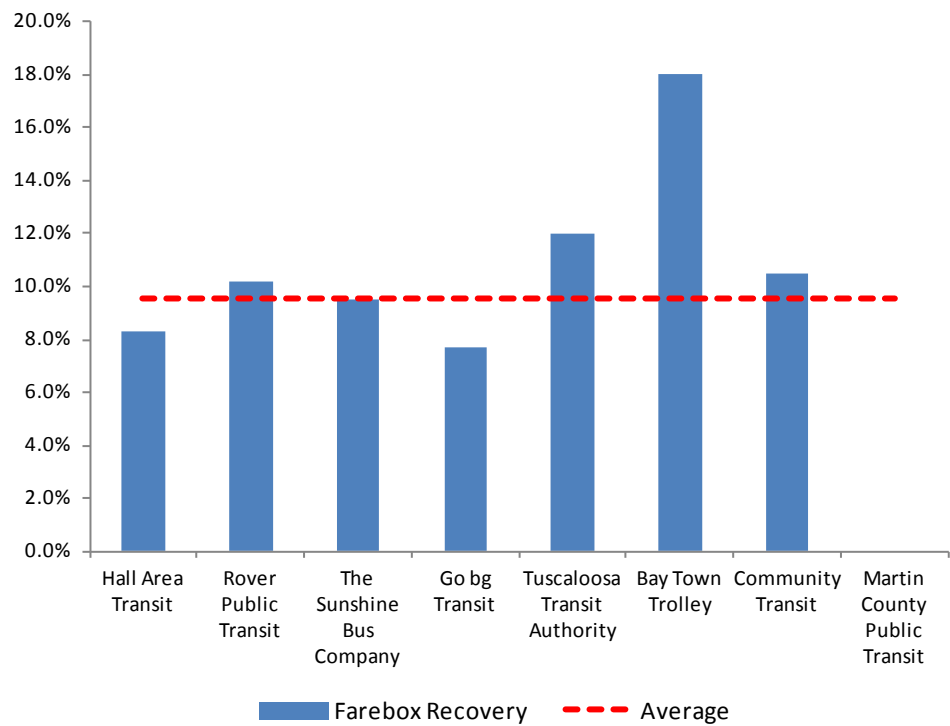
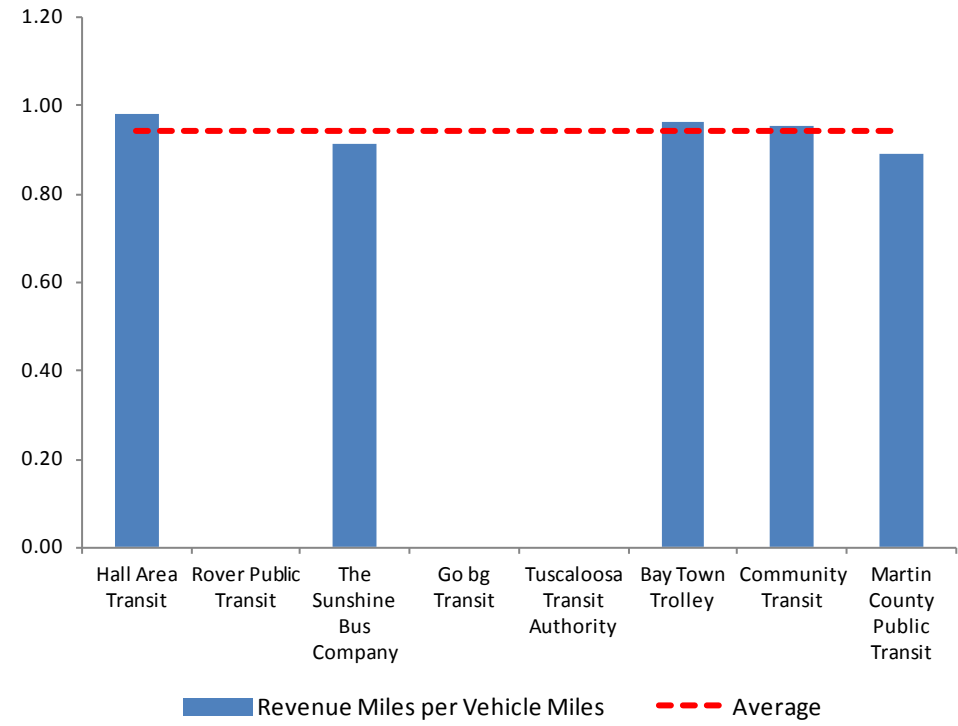


Figure 3-48: Revenue Miles per Vehicle Miles





Effectiveness Measures

Key measures used for comparing effectiveness of MCPT to selected peer systems are presented in Table 3-6 and Figures 3-36 through 3-42.

A summary of key effectiveness measures follows:

- » Vehicle miles per capita, revenue miles per capita, and revenue hours per capita for MCPT are substantially lower than mean indicating lower transit service supply relatively to peer transit systems (Figures 3-36, 3-37, and 3-38).
- » Passenger trips per capita, passenger trips per revenue mile, and passenger trips per revenue hour for MCPT is below mean for the peer group, which suggests low level of service consumption. This is typical of transit systems in low density service area. (Figures 3-39, 3-40, and 3-41).
- » Average age of fleet for MCTP is below the mean indicating that the agency is operating newer vehicles compared to the peer agencies. It is expected to have lower number of system failures and lower maintenance expenses. (Figures 3-42).

Efficiency Measures

Key measures used for comparing efficiency of MCPT with selected peer systems are presented in Table 3-7 and Figures 3-43 through 3-48.

A summary of key efficiency measures follows:

- » Operating expense per capita for MCPT is below mean at \$1.54 while operating expense per passenger trip is above mean, which is typical of small transit systems providing service in low density urban areas (Figures 3-43 and 3-44).
- » Operating expense per revenue mile for MCPT is below mean indicating better overall systemwide productivity compared to its peers (Figure 3-45).
- » Since MCTP provided fare free transit service in 2011, comparing farebox recovery and average fare with its peers shows skewed results (Figures 3-46 and 3-47).
- » For MCPT, revenue miles per vehicle miles is below peer group mean indicating higher overall non-revenue service miles or dead head relative to its peers (Figure 3-48).

Table 3-7: Efficiency Measures, Martin County Public Transit Peer Review Analysis

Efficiency Measures	Martin County Public Transit (MCPT)	Peer Group Minimum	Peer Group Maximum	Peer Group Range	Peer Group Mean	MCPT % from Mean
Operating Expense per Capita	\$1.54	\$1.54	\$27.10	\$25.56	\$11.73	-86.8%
Operating Expense per Passenger Trip	\$10.10	\$3.70	\$10.10	\$6.40	\$6.13	64.9%
Operating Expense per Revenue Mile	\$3.28	\$2.05	\$4.76	\$2.71	\$3.72	-11.6%
Farebox Recovery	0.00%	0.0%	18.0%	18.0%	9.5%	-
Average Fare	\$0.00	\$0.00	\$1.00	\$1.00	\$0.53	-
Revenue Miles per Vehicle Miles	0.89	0.89	0.98	0.09	0.94	-5.1%

Peer Review Analysis Summary

Table 3-18 includes a summary of MCPT fixed route peer review analysis. It shows performance of MCTP compared to its peers relative to each of the general, effectiveness, and efficiency measures in term of how close or far it is from the peer group mean.

In conclusion, the trend analysis in conjunction with peer review analysis provided a profound understanding of strengths and weaknesses of the transit system in Martin County. This knowledgebase was used to identify transit improvements to address the most critical shortcomings that could enhance the effectiveness and increase the efficiency of the public transportation system in Martin County.

Table 3-8: Summary of Peer Review Analysis, Martin County Public Transit

Performance Measures	% Away from Mean	Indicator
General Performance		
Service Area Population	10%	na
Service Area Population Density (persons/ square mile)	-78%	na
Unlinked Passenger Trips	-86%	Negative
Passenger Miles	-92%	Negative
Total Vehicle Miles	-59%	Negative
Revenue Miles	-57%	Negative
Revenue Hours	-39%	Negative
Total Operating Expense	-50%	Positive
Passenger Fare Revenue	na	na
Vehicle Operated in Max. Service	23%	na
Service Supply		
Vehicle Miles per Capita	-86%	Negative
Revenue Miles per Capita	-86%	Negative
Revenue Hours per Capita	-86%	Negative
Service Consumption		
Passenger Trips per Capita	-94%	Negative
Passenger Trips per Revenue Mile	-53%	Negative
Passenger Trips per Revenue Hour	-52%	Negative
Quality of Service		
Average Age of Fleet (in years)	-31%	Positive
Cost Efficiency		
Operating Expense per Capita	-87%	Negative
Operating Expense per Passenger Trip	65%	Negative
Operating Expense per Revenue Mile	-12%	Positive
Operating Ratio		
Farebox Recovery	na	na
Fare		
Average Fare	na	na
Vehicle Utilization		
Revenue Miles per Vehicle Miles	-5%	Negative



# Chapter Four

## Public Involvement

A comprehensive and transparent public involvement process is essential to understanding which specific improvements have public support and should be considered for further technical evaluation. Engaging the public early in the planning process not only serves as a means for gathering input and defining problems, but also for how to frame solutions to address those problems, confirm the analyses, and ultimately the plan recommendations.

The public involvement process conducted for the Martin County Transit Development Plan (TDP) began with the development of a Public Involvement Plan (PIP), which was approved by FDOT in November 2013. The PIP developed specifically for the TDP update is consistent with the MPO’s overall Public Involvement Plan (adopted December 21, 2009 and revised on May 20, 2013) and the FDOT’s TDP Guidelines. The PIP identified all of the stakeholders, community groups, and agencies that were believed to have interest in the TDP, and specified a variety of strategies to engage them in the planning process. The PIP served as a living document over the course of the TDP planning process. A description of the different public involvement activities conducted since the TDP project was initiated in August 2013 to date follows.

### 4.1 PUBLIC WORKSHOPS

Three public workshops were held in December 2013 to share project information and receive input from Martin County citizens (see Table 4-1). From November 7, 2013 through December 11, 2013, a variety of communication techniques were used to notify Martin County residents about the three workshops. These techniques included: online communication via Martin MPO and County website’ social media postings (Facebook, Twitter, and Noodls); flyers; newspaper (TC Palm); MPO Advisory Committee meetings, Martin County TV; and an email blast.

Twenty-nine (29) residents attended these workshops and provided more than 50 written comments along with surveys. The following transit needs were identified based on public input:

- » More frequent bus service
- » New bus routes
- » Weekend bus service
- » Branding and marketing

Table 4-1: Martin County Transit Development Plan Pubic Workshops

Date	Location	Time
December 3, 2013	Banner Lake Club Community Center 12212 SE Lantana Avenue, Hobe Sound, Florida 33455	5:30 pm to 7:30 pm
December 5, 2013	10th Street Recreation Center 724 SE 10th Street, Stuart, Florida 34994	6:00 pm to 8:00 pm
December 11, 2013	Elisabeth Lahti Public Library 15200 SW Adams Street, Indiantown, Florida 34956	5:30 pm to 7:30 pm

- » Changes to bus fare structure (seniors, students, veterans, etc.)
- » Improve access to bus stops, address ADA issues, provide on-board amenities

The *Technical Memorandum 2: Plan Recommendations, June 2014* provides a comprehensive documentation of the public notification techniques, interactive exercises conducted at the workshops and the input collected.

### 4.2 STAKEHOLDER INTERVIEWS

To better understand the community’s desire and vision for the role of public transportation in Martin County, community leaders (elected officials) and key agency personnel from Martin County, Indian River State College (IRSC), Workforce Solutions, Stuart/Martin Chamber of Commerce, and the Indiantown Neighborhood Advisory Council were interviewed. Some of the interviews were conducted in-person while held by telephone. The interviewee was provided a questionnaire in advance of the scheduled interview time. The *Technical Memorandum 2: Plan Recommendations, June 2014* includes a detailed stakeholder interview log. The following transit needs were identified by stakeholders during the interview process:

- » Branding and marketing
- » Expansion of transit service - New routes to provide access to the beach, Palm City, Hobe Sound and increase in span of service
- » Create transit hub in Stuart – Hub and spoke system
- » Increase/provide regional connectivity to St. Lucie and Palm Beach Counties, explore viability of regional rail
- » Increase awareness and understanding of existing transit services
- » Improve accessibility to bus stops, bus stop shelters

### 4.3 TRANSIT RIDER AND NON-RIDER SURVEYS

The Martin MPO conducted rider and non-rider surveys to understand the transit system needs and desires from existing customers and potential riders. These surveys were conducted between December 2013 and March 2014. The rider and non-rider survey questionnaire was distributed at various libraries, public workshops, and at County buildings throughout Martin County. Additionally, the rider survey questionnaire was distributed on all MCPT fixed bus routes. Survey questionnaires were made available in both English and Spanish languages. It should be noted that these surveys were not intended to be scientific in that a statistically valid sample was not expected to be achieved, but the results were expected to be somewhat representative of the general population. The *Technical Memorandum 2: Plan Recommendations, June 2014* contains the sample survey questionnaire used for conducting the rider and non-rider surveys.

Based on 30 responses obtained from the rider survey, the following rider characteristics were discerned:

- » 75% of riders walk or bike to access transit service, there’s a relatively small market for park-and-ride and kiss-and-ride.
- » 60% of riders are aged 55 years or older and 50% hold a valid driver’s license; about 27% of the riders have full-time jobs and only 31% are riders using transit for commuting.
- » 50% of riders would use transit service into Palm Beach County for recreational purposes while 8% to 12% would use it to make a work or college trip.





Approximately 115 responses received from non-riders revealed the following patterns:

- » 33% who do not use transit heard about MCPT for the first time.
- » Majority of the respondents are above 55 years of age and use a personal automobile for daily travel; about 50% of the respondents have full-time jobs.
- » More than 50% of non-users do not use transit because it does not serve their transportation needs, while 16% were not aware of the bus schedule or bus stop location.

Major findings relative to transit needs from both the rider and non-rider surveys follow:

- » Weekend bus service and bus shelters are the top priority, followed by late evening transit service, new routes, and shorter headways
- » Increased awareness of existing transit service in Martin County is important so that residents are knowledgeable with regard to the transportation options available to them.

## 4.4 WEBSITE AND SPECIAL EVENTS

A webpage (<http://www.martinmpo.com/transit/>) dedicated to the Martin County TDP was created within the Martin MPO website to disseminate information regarding the planning process, which included advertising public workshops, TDP flyers and posters, technical documents, as well as to gather public input via online surveys. To date 1,753 unique visitors have viewed the TDP webpage.

The Martin MPO partnered with the Martin County Fire Rescue and the South Florida Commuter Services (SFCS) as part of its community outreach efforts at the 2014

Martin County Fair. In addition to comments bicyclist and pedestrian safety, transit surveys were distributed to seek input from the public. Available in both English and Spanish, the transit surveys asked non-users how they could be encouraged to ride public transit. The staff from the SFCS explained the benefits of public transit, and the multiple ride-sharing opportunities which are available in Martin County.

Table 4-3: Agency Meetings

Date	Committee/Board/Agency	Location
November 13, 2013	Citizen Advisory Committee (CAC), Bicycle and Pedestrian Advisory Committee (BPAC), Technical Advisory Committee (TAC) – Joint Meeting	Blake Library, Armstrong Wing 2351 SE Monterey Road Stuart, Florida 34996
November 25, 2013	City of Stuart Commission Meeting	121 SE Flagler Avenue Stuart, FL 34994
December 2, 2013	Local Coordinating Board for the Transportation Disadvantaged (LCB-TD)	Martin MPO 2401 SE Monterey Road Stuart, Florida 34996
December 16, 2013	Martin MPO Policy Board	Martin MPO 2401 SE Monterey Road Stuart, Florida 34996
December 18, 2013	Regional Coordination Meeting; Martin MPO/St. Lucie TPO/FDOT	St. Lucie TPO offices 466 SW Port St. Lucie Boulevard Port St. Lucie, FL 34953
February 18, 2014	Martin County Board of County Commissioners	Martin MPO 2401 SE Monterey Road Stuart, Florida 34996

## 4.5 AGENCY COORDINATION

A TDP steering committee was formed to provide clear direction to MPO staff and the TDP consultant. This steering committee membership comprises of agency staff from Martin MPO, Martin County Engineering, Martin County Health and Human Services, the Martin County Community Redevelopment Agency, CareerSource Research Coast (formerly Workforce Solutions), and the Florida Department of Transportation. The steering committee met on a bi-monthly basis and provided guidance throughout the planning process. All of the technical analysis findings and strategies were vetted through the steering committee during the plan development process and at major project milestones (see Table 4-2).

Meetings with St. Lucie County public transit and the St. Lucie Transportation Planning Organization (TPO) also occurred during the planning process.

Several presentations were made to the Martin MPO Advisory Committees as well as to the MPO Board and Martin County Board of County Commissioners (BOCC) to receive ideas and input for developing the Martin County TDP (see Table 4-3).

In conclusion, input and feedback received through the various public outreach activities, agency coordination, and stakeholder interviews was used to derive transit needs for Martin County, which is provided Chapter 5.

Table 4-2: Steering Committee Meetings

Date	Location	Topic
August 12, 2013	Martin MPO 2401 SE Monterey Road Stuart, Florida 34996	Project kick-off meeting
November 14, 2013		Public outreach activities
January 28, 2014		Vision, goals, objectives, performance measure and preliminary alternatives
April 17, 2014		Preliminary alternatives evaluation
May 5, 2014		Financial analysis

# Transit Demand and Needs Assessment



*Understanding the performance of the existing fixed route bus system is necessary to identifying areas for improving its effectiveness and efficiency. To that end, performance of the Martin County Public Transit's (MCPT) existing fixed route bus service was evaluated by performing trend analysis and peer review analysis. A detailed discussion of these analyses is included in Chapter 3. An overview of the key findings from the trend analysis and peer analysis which informed the transit needs assessment is highlighted in this chapter. Further, a brief discussion on the existing commute patterns of Martin County residents and workers as well as the future transit demand resulting from population and employment growth in the County is also included in this chapter. A detailed analysis of existing commute patterns is available in the Technical Memorandum 1: Baseline Condition and Existing Transit Service Performance, February 2014.*

## 5.1 TREND ANALYSIS

An evaluation of the existing fixed route transit service offered by the MCPT was conducted to understand the overall system level performance on an annual basis over time. The performance evaluation reviewed a wide variety of operating and financial data over a period of six years (from year 2007 to 2012) as well as data for the overall systemwide characteristics. These data and performance indicators were categorized in to three major groups; general performance, effectiveness, and efficiency.

### A summary of the key findings from trend analysis which helped identify transit needs and demand in Martin County follow:

- » **General Performance:** Overall performance of the MCPT services for passenger trips, passenger miles, vehicle miles, and revenue miles is on upward trajectory. The operating expense is also increasing, which is one of the key areas that transit agencies seek to maintain as they grow and improve transit services.
- » **Service Supply and Availability:** In the past two years, the MCPT has increased transit service in terms of vehicles miles per capita while maintaining the span of service.
- » **Service Consumption:** All three indicators - passenger trips per capita, passenger trips per revenue mile and revenue hour exhibit a strong demand for transit in Martin County.
- » **Quality of Service:** The number of vehicle system failures and revenue miles between failures indicates improvement in the quality of transit service, which could be attributed to the new fleet which probably requires less maintenance.
- » **Cost Efficiency:** Operating expense per passenger trip and operating expense per passenger mile decreased over the past years while the operating expense per revenue mile increased and the operating expense per revenue hour slightly decreased.

## 5.2 PEER REVIEW ANALYSIS

Peer review analysis is used for benchmarking purposes as well as to assess the target agency's strengths and weaknesses compared to transit systems in geographic areas with similar characteristics. Data from the 2011 NTD was used to conduct the peer review analysis for MCPT's fixed route bus service and all selected peers. Peer agencies were identified based on the methodology described in the *Transit Cooperative Research Project (TCRP) Report 141 - "A Methodology for Performance Measurement and Peer Comparison in the Public Transportation Industry."* The list of agencies selected for the peer review analysis is provided in Chapter 3, Table 3-4.

The peer review analysis indicated that MCPT's performance is mixed in comparison to its peers. This

analysis indicated that Martin County was generally far from the peer group mean in a majority of the performance indicators, which can be explained by the relative large service area and relative low population density in Martin County in contrast to the peer group. The peer review analysis indicated that The Sunshine Bus Company had better performance than the MCPT despite having low density. Further investigation to understand the reasons for The Sunshine Bus Company's higher performance revealed that significant population growth over the past years coupled with the agency's marketing and branding effort helped improve that transit system's performance and provided opportunities for expanding the fixed route bus service.

## 5.3 EXISTING COMMUTE PATTERNS

Traffic congestion in urban areas is predominantly caused by commuting patterns. Home-to-work commuting (journey-to-work) trips play a unique role in determining the peak travel demand on transportation systems. Understanding how workers travel to their workplace and utilize transportation amenities and service can help make

informed decisions about transportation policies, capital investments, transit services, and even public outreach activities. The commuting characteristics for Martin County were analyzed using both the most recent Longitudinal Employer-Household Dynamics (LEHD) data (Year 2011) and the 2006-2010 American Community Survey (ACS)/ Census Transportation Planning Products (CTPP). Detailed discussion along with data and maps showing existing commute patterns is available in the *Technical Memorandum 1: Baseline Condition and Existing Transit Service Performance, February 2014*.

### Key findings from the analysis of existing commute patterns that informed transit needs assessment and potential demand in Martin County include:

- » Strong regional and local commuter market.
- » Palm City and Stuart have the largest commuter market in the County.
- » About 90% of residents use personal autos for commute purposes, 11% carpool, 3% walk and bike, 5.5% telecommute.



## 5.4 FUTURE TRANSIT DEMAND

The following is a summary description of the major findings from the transportation-land use linkage and demographic analysis included in Chapter 2, which helped identify the lack of fixed route service connectivity and future transit markets that could potentially be served by new or improved public transportation services.

- » Existing fixed route bus service does not serve some of the key tourist destinations and beaches.
- » Lack of public transportation connectivity in major commercial and residential areas in Palm City and Hobe Sound.
- » Per Bureau of Economic and Business Research, approximately one (1) percent to two (2) percent growth in population and in employment per year is expected over the next 10 years, which means about

20,000 new residents and 11,200 additional jobs in Martin County.

- » Population density increased from 233 person/sq. mile to 267 persons/sq. mile and is anticipated to increase in the future
- » Aging population.
- » Large percentage (46 percent) of population is transit dependent (*people under 18 and over 65 years, people who do not own a car*)
- » Transit ridership is projected to increase at the rate of approximately three (3) percent per year over the next 10 years

## 5.5 PUBLIC & STAKEHOLDER INPUT

As described in Chapter 4, based on the public involvement activities and stakeholder outreach, the following most common transit needs as well as desires were consistently identified by various different groups:

- » More frequent bus service
- » Weekend bus service
- » Branding and marketing
- » Expansion of transit service - new routes to provide access to the beach, Palm City, Hobe Sound and increase in span of service
- » Transit hub in Stuart – Hub and spoke system
- » Improve access to bus stops, address ADA issues, provide on-board amenities
- » Increase/provide regional connectivity to St. Lucie and Palm Beach Counties
- » Increase awareness and understanding of existing transit services





# Martin County Public Transit Vision



## 6.1 VISION STATEMENT

Based on the input received through a variety of public outreach activities and agency coordination as well as through technical analysis (trend analysis, peer review analysis, existing commute pattern analysis, future transit demand estimation) conducted to identify transit needs

and demand as well as to building upon the existing transit system's strength and eliminate its weakness, the following vision statement was developed for the public transportation system in Martin County by the project team and presented to the project steering committee.

*"To enhance the overall quality of life of Martin County residents and workers by providing safe, accessible, reliable, interconnected, and attractive public transportation system that is effective and efficient in meeting their mobility and accessibility needs."*

## 6.2 GOALS AND OBJECTIVES

The Martin County Transit Development Plan (TDP) goals and objectives were established by the project team in coordination with the project steering committee to accomplish the Martin County Public Transit (MCPT) agency's vision for the public transportation system in Martin County. The TDP goals and objectives provide a general framework for providing fixed route transit service in Martin County. A description of the five (5) TDP goals and 24 objectives corresponding to these goals follows:

### Transit Service Quality Goal

Develop a high quality public transportation service to move people within Martin County and the Treasure Coast region.

#### Objectives:

- » Provide transit connections to key destinations and areas not currently served by public transportation in Martin County;
- » Develop and implement additional regional fixed route bus service;
- » Increase span of service during weekdays and provide transit service on weekends (Saturday and Sunday);

- » Increase bus frequency to meet rider needs;
- » Provide bus shelters and amenities (bike racks, benches, trash receptacle) including ADA upgrades;
- » Provide sidewalk and bicycle facilities for customers to access transit services ; and
- » Create a transit pass holder program.

### Transit Service Efficiency and Effectiveness Goal

Focus on improving the efficiency and effectiveness of transit services provided by Martin County Public Transit (MCPT).

#### Objectives:

- » Improve ridership productivity (effectiveness) and cost efficiency of the transit system;
- » Upgrade software for scheduling transit service and fare collection;
- » Continue to implement the fleet replacement plan and acquire larger buses as well as equipment upgrades (e-cards, passenger counters, WIFI, automated announcement system);

- » Identify a site to serve as a transit facility for fleet parking and bus wash station; and
- » Develop transit service efficiency and effectiveness standards to monitor systemwide and route level performance

### Transit Ridership Goal

Increase ridership levels by capturing traditional and new transportation markets.

#### Objectives:

- » Continue to serve the traditional transit market and increase ridership levels to keep the ridership growth rate higher than the population growth rate over 10-year plan period;
- » Promote transit use through direct marketing to area residents and employers; and
- » Capture choice riders, tourists, and students to increase transit ridership to the extent possible.

### Branding, Marketing and Public Awareness Goal

To create a brand for Martin County Public Transit that is distinct and recognizable by existing and potential customers.

#### Objectives:

- » Develop a brand for Martin County Public Transit (MCPT) for marketing public transportation services to existing and potential customers;

- » Conduct targeted marketing efforts for high-potential groups – including tourists, elderly, students, low income, disabled, and transit-dependent residents; and
- » Conduct outreach efforts to ensure that all area residents are aware of area transit services.
- » Explore opportunities for raising additional revenue that are complementary to branding efforts.

### Intergovernmental Coordination Goal

Continue building strong partnerships with community and private sector entities as well as transportation agencies in the region.

#### Objectives:

- » Conduct coordinated public outreach efforts to existing riders and potential transit system users in the Treasure Coast region;
- » Monitor regional and intergovernmental coordination activities;
- » Support policies and agreements that encourage development and expansion of regional transit service;
- » Continue to utilize transportation demand management (TDM) strategies and provide transit services that have synergy with South Florida Commuter Services program; and
- » Help support and advance local jurisdictions' transit supportive land use policies.

## 6.3 PERFORMANCE MEASURES

Thirty two (32) performance measures relative to 24 objectives, which in turn correspond to five (5) goals, were developed to evaluate different alternatives, which are described in Chapter 7 (see Table 6-1). In addition, the performance measures were developed in such a manner that they will help MCPT monitor the agency's progress in implementing the TDP. Further, these performance measures will improve the annual TDP update process; and provide the rationale for making appropriate adjustments to the agency's capital and service plan to meet its goals and ultimately the vision. In some cases alternatives would perform equally, but these performance measures would play a key role in setting major milestones and evaluating annual accomplishments. For instance, the performance of

all the alternatives corresponding to the objective - identify a site for fleet parking and bus wash station; will be equal since the MCPT is in the process of exploring suitable sites. However, once the site is identified the agency will conduct due diligence, design the facility, and construct it. As the MCPT updates its TDP annually, it can monitor the progress using the performance measure included in this document. The majority of the performance measures identified in the new surface transportation legislation, Moving Ahead for Progress for the 21st Century (MAP-21) as it relates to transit, are recorded by transit agencies and supplied as part of the National Transit Database (NTD) reporting requirement. Most of these key performance measures are included in Table 6-1.



Table 6-1: Goals and Objectives vis-à-vis Evaluation Criteria and Performance Measures

Goals		Objectives	Performance Measures
Transit Service Quality Goal	Develop a high quality public transportation service to move people within Martin County and the Treasure Coast region.	Provide transit connections to key destinations and areas not currently served by public transportation in Martin County	Number of activity centers served by fixed route bus system
		Develop and implement regional fixed route bus service	Number of bus routes providing one-seat ride to St. Lucie and/or Palm Beach Counties
		Increase span of service during weekdays and provide transit service on weekends (Saturday and Sunday)	Weekday revenue-hours - Annualized (Year 2023)
			Weekend revenue-hours - Annualized (Year 2023)
		Increase bus frequency to meet rider needs	Revenue-hours per capita within 1/2 mile radius of bus stops
		Provide bus shelters and amenities (bike racks, benches, trash receptacle) including ADA upgrades	Number of bus stops identified for upgrades
		Provide sidewalk and bicycle facilities for customers to access transit services	Total miles of bike/ped improvements within 1/2 mile of bus stops
		Create a transit pass holder program	Transit pass holder program status
Transit Service Efficiency and Effectiveness Goal	Focus on improving the efficiency and effectiveness of transit services provided by Martin County Public Transit (MPCT).	Improve ridership productivity (effectiveness) and cost efficiency of the transit system	Annual Ridership (Year 2023)
			Passenger trips per revenue-hour (Annualized)
			Passenger trips per revenue-mile (Annualized)
			Operating cost per passenger trip (Annualized) (in 2023 dollars)
			Annual Operating Cost (Year 2023) (in 2023 dollars)
			Annual Ridership (Year 2023)
		Upgrade software for scheduling transit service and fare collection	Passenger trips per revenue-hour (Annualized)
			Purchase software and design an implementation plan
		Continue to implement the fleet replacement plan and acquire larger buses as well as equipment upgrades (e-cards, passenger counters, WIFI, automated announcement system)	Status of fleet replacement schedule and availability of funds
		Identify a site to serve as a transit facility for fleet parking and bus wash station	Site selection status
		Develop transit service efficiency and effectiveness standards to monitor systemwide and route level performance	Implementation plan and monitoring schedule
Transit Ridership Goal	Increase ridership levels by capturing traditional and new transportation markets.	Continue to serve the traditional transit market and increase ridership levels to keep the ridership growth rate higher than the population growth rate over 10-year plan period	Differential between transit ridership growth and population growth rate (Annualized)
		Promote transit use through direct marketing to area residents and employers	Availability of real time information on transit schedule and arrival time via internet, cell phones and other devices
		Capture choice riders, tourists, and students to increase transit ridership to the extent possible	Number of jobs within 1/2 mile of bus stops
			Number of key tourist destinations served by fixed bus routes
			Number of middle and high schools within 1/2 mile of bus stops
Branding, Marketing and Public Awareness Goal	To create a brand for Martin County Public Transit that is distinct and recognizable by existing and potential customers.	Develop a Marketing Plan including “branding” for Martin County Public Transit (MCPT) for marketing public transportation services to existing and potential customers	Development status of marketing plan
		Conduct targeted marketing efforts for high-potential groups – including tourists, elderly, students, low income, disabled, and transit-dependent residents	Total exposure from targeted joint marketing efforts with visitors bureau, hotels/resorts, health care facilities, schools, and so on
		Conduct outreach efforts to ensure that all area residents are aware of area transit services	Total exposure from various outreach activities including job fairs, public service announcement (PSA), website hits, providing transit information along with utility bills, and so on
		Explore opportunities for raising additional revenue that are complementary to branding efforts	Potential revenue generated through advertisements on bus shelters and buses
Intergovernmental Coordination Goal	Continue building strong partnerships with community and private sector entities as well as transportation agencies in the region.	Conduct coordinated public outreach efforts to existing riders and potential transit system users in the Treasure Coast region	Number of events of regional significance and/or total exposure
		Monitor regional and intergovernmental coordination activities	Number of meeting with County, transit agency, Community Transit Coordinator (CTC), and transportation agencies serving the Treasure Coast Region conducted throughout the year including major accomplishments
		Support policies and agreements that encourage development and expansion of regional transit service	Level of local support for regional transit projects
		Continue to utilize transportation demand management (TDM) strategies and provide transit services that have synergy with South Florida Commuter Services program	Number of new and/or expanded park and ride lots in Martin County
			Number of bus routes serving park and ride lots in Martin County
		Help support and advance local jurisdictions’ transit supportive land use policies	Develop population and job density thresholds and coordinate with local jurisdictions to design unconventional mechanisms to provide transit service including micro transit

# Development and Evaluation of Alternatives



## 7.1 ALTERNATIVES DEVELOPMENT

With the input gathered from the public workshops and stakeholder interviews, and completion of the transit demand and needs assessments, a series of transit system and service alternatives were developed to meet the Martin County Transit Development Plan (TDP) goals and objectives and accomplish the Martin County Public Transit (MCPT) agency's vision described in Chapter 4. The definition of the alternatives also utilized the data gathered from the transit rider and non-rider surveys, and input received from all of the transportation agencies in the Treasure Coast Region. The transit demand and needs assessment analyses were derived from transit ridership estimation and population forecasts as well the transit needs identified in the 2035 Regional Long Range Transportation Plan (LRTP). The alternatives were developed such that the benefits realized from implementing different transit service improvements could be evaluated and analyzed vis-à-vis performance measures. Such an approach assists in selecting

a program of projects which maximize resources and accomplish the MCPT's goals and objectives and ultimately its vision. A brief overview of the key service and capital improvement elements of the alternatives follows.

### *Status Quo Alternative*

Under this alternative, the existing fixed route bus service would continue to operate 'as is' in the future years (see Table 7-1).

### *More Frequent Bus Service Alternative*

This alternative would provide shorter headways (or increased bus frequency) on the three (3) existing fixed bus routes in Martin County (see Table 7-2).

### *Weekday Service Expansion (A) Alternative*

The span of service for all of the fixed routes during weekdays would be increased from 7:00am – 6:00 pm to 7:00am–7:00pm to capture late evening ridership and a broader segment of the commuter market (see Table 7-3).

Table 7-1: Status Quo

Route Name	Span of Service	Headway (in minutes)	
		AM/PM	Midday
Indiantown Route	7:30am – 5:20pm	60	60
Stuart Route	7:20am – 6:00pm	120	120
Treasure Coast Connector (TCC)	7:05am – 5:55pm	60	60

Table 7-2: More Frequent Bus Service

Route Name	Span of Service	Headway (in minutes)	
		AM/PM	Midday
Indiantown Route	7:30am – 5:20pm	45	45
Stuart Route	7:20am – 6:00pm	80	80
Treasure Coast Connector (TCC)	7:05am – 5:55pm	30	30

Table 7-3: Weekday Service Expansion (A) Alternative

Route Name	Span of Service	Headway (in minutes)	
		AM/PM	Midday
Indiantown Route	7:30am – 7:00pm	60	60
Stuart Route	7:20am – 7:00pm	120	120
Treasure Coast Connector (TCC)	7:05am – 7:00pm	60	60

Table 7-4: Weekday Service Expansion (B) Alternative

Route Name	Span of Service	Headway (in minutes)	
		AM/PM	Midday
Indiantown Route	7:30am – 9:00pm	60	60
Stuart Route	7:20am – 9:00pm	120	120
Treasure Coast Connector (TCC)	7:05am – 9:00pm	60	60

Table 7-5: Weekend Service

Route Name	Span of Service	Headway (in minutes) – Weekday		Weekend Span of Service	Headway (in minutes) – Saturday/Sunday Service	
		AM/PM	Midday		AM/PM	Midday
Indiantown Route	7:30am – 5:20pm	60	60	8:00am – 5:00pm	60	60
Stuart Route	7:20am – 6:00pm	120	120	8:00am – 5:00pm	120	120
Treasure Coast Connector (TCC)	7:05am – 5:55pm	60	60	8:00am – 5:00pm	60	60

Table 7-6: Hub and Spoke System/New Routes

Route Name	Span of Service	Headway (in minutes)	
		AM/PM	Midday
Indiantown Route	7:30am – 5:20pm	60	60
Stuart Route	7:20am – 6:00pm	120	120
Treasure Coast Connector (TCC)	7:05am – 5:55pm	60	60
Hutchinson Island Route	7:20am – 6:00pm	45	45
Palm City Route	7:20am – 6:00pm	30	30
Treasure Coast Express (TCX)	7:05am – 7:25pm	90	90

### *Weekday Service Expansion (B) Alternative*

This alternative considers increases the span of service for all the fixed bus routes during weekdays from 7:00am–6:00pm to 7:00am–9:00pm to capture later evening ridership to better understand if there is a latent demand for transit ridership after 7:00pm (see Table 7-4).

### *Weekend Service Expansion Alternative*

Under this alternative transit service would be provided on Saturdays and Sundays from 8:00am-5:00pm in addition to the continuation of the existing weekday service (see Table 7-5).

### *Hub and Spoke System/New Routes Alternative*

This alternative would expand the geographic coverage of the existing fixed route bus network by providing public transportation service to: 1) Hutchinson Island to connect with key tourist destinations; 2) adding a route to Palm City which would serve residents and businesses; and 3) provide regional connectivity along US 1 into Palm Beach County via the Treasure Coast Express (TCX). The existing fixed route transit service would continue to operate 'as is,' but would provide connectivity with the new routes. Figure 7-1 illustrates the service improvements included in this alternative and Table 7-6 identifies the Hub and Spoke System/New Routes span of service and headways.





7.1.1 Systemwide Capital Improvement Needs

All of the alternatives except for the Status Quo alternative include the following systemwide capital improvement needs.

Bus Stop Improvements

Provide shelters, ADA upgrades, and install bicycle racks at those bus stops with relatively high ridership activity.

Marketing Plan and Branding

Includes preparation of a marketing strategy and promotions to develop a brand for MCPT’s fixed route bus service. Specific tasks for branding include developing a more reader-friendly system map, providing bus route

cards with an intuitive schedule, possibly a color scheme for the buses, posters/flyers targeted at niche transit markets, bus logo design, and media promotions or public service announcements (PSAs).

Transit Pass Holder Program

Includes installing electronic kiosks in select public buildings throughout Martin County for dispensing daily or monthly passes for transit riders.

Park and Ride Lots

Includes expanding the existing Martin Highway and Florida Turnpike Mile Post 133 park and ride facility, and building three new park and ride lots: at US 1/Bridge Road, I-95/High Meadows, and SR 710/Market Place at Citrus. Per Florida Department of Transportation’s (FDOT, District

Figure 7-1: Hub and Spoke System/New Routes Alternative

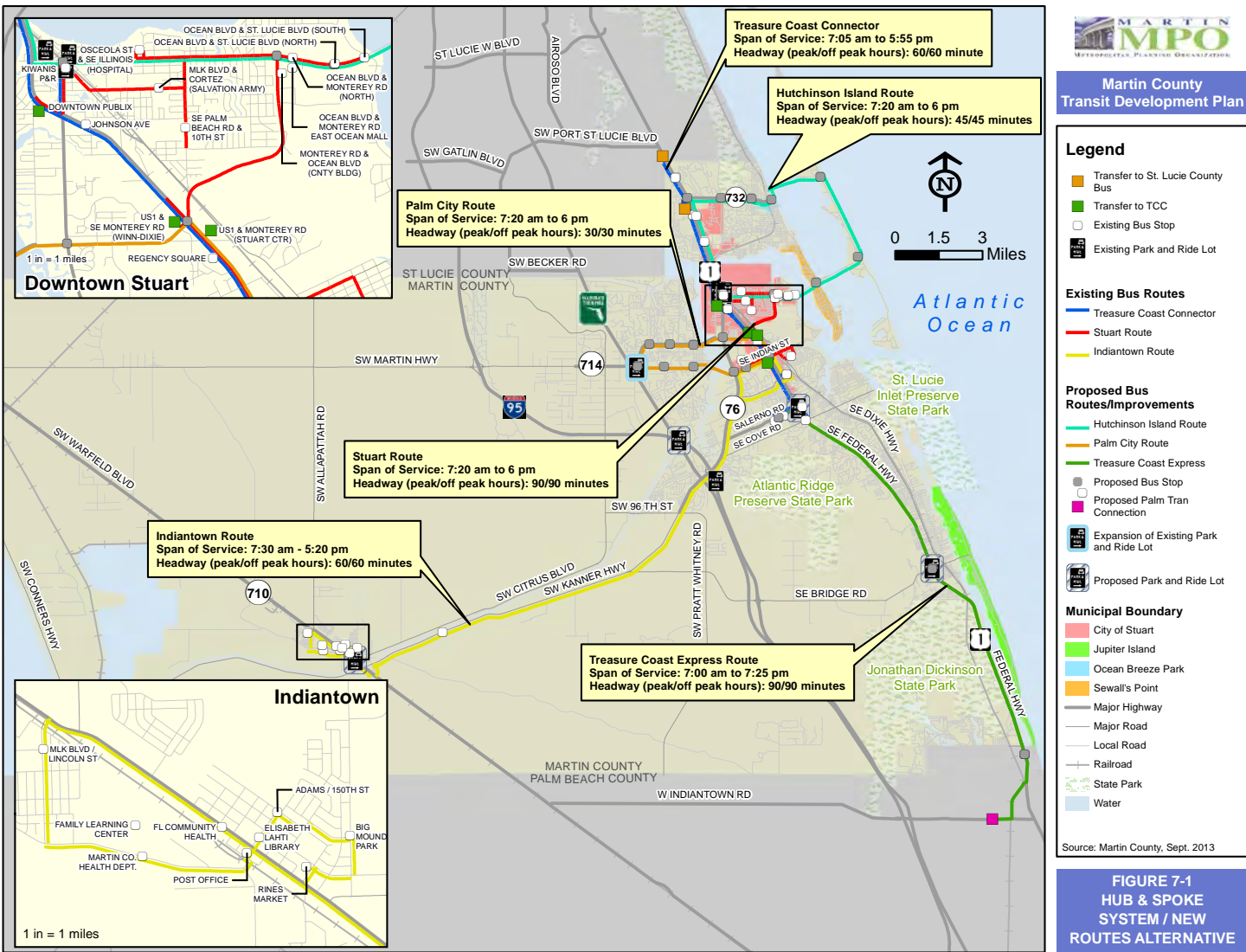


Table 7-7: Systemwide Capital Improvement Needs

Purchase Year	Model	VIN	Ramp	Total Seats or Seats/Wheelchair	Expected Year of Retirement	Lift Type
2010	Champion 31' Bus	4DRASSKM1BH332233	RAMP	24 or 14/3	2015	MWR
2010	Champion 31' Bus	4DRASSKM4BH332243	RAMP	24 or 14/3	2015	MWR
2011	Chevy 26' Bus	1GB6G5BG0B1185438	RAMP	22 or 16/2	2016	Ricon Ramp
2011	Chevy 26' Bus	1GB6G5BGXB6200405	RAMP	22 or 16/2	2016	Ricon Ramp
2012	Chevy 26' Bus	1GB6G5BG9B1190069	RAMP	22 or 12/3	2017	Ricon Ramp
2013	Chevy 26' Bus	1GB6G5BG9D1154529	RAMP	22 or 16/2	2017	Ricon Ramp
2013	Chevy 26' Bus	1GB6G5BG1E1108288	RAMP	22 or 16/2	2018	Ricon Ramp

Four) Spring 2013 Park-and-Ride Inventory Utilization Report; the 33 existing spaces at the Martin Highway and Florida Turnpike Mile Post 133 Park-and-Ride lot have a 94 percent utilization rate. The Martin MPO’s Park and Ride Study, May 2007 estimated a need for 16 additional spaces at the time. In addition, the Martin MPO’s report identified potential locations for the new park and ride lots. The 2035 Regional Long Range Transportation Plan also identified the need for park and ride lots that are consistent with the locations included in this discussion.

Bus Equipment Upgrades

Includes installing on-board WIFI, automated passenger announcement system, Automated Vehicle Location equipment (GPS and vehicle logic unit), automatic passenger counters (APC), and E-card reader for expediting fare collection process. The notion is that providing these passenger amenities will attract choice riders to the fixed route bus service.

Fixed Route Scheduling Software and Automatic Passenger Counter (APC) Software

Includes installing software for vehicle tracking and scheduling, database and information storage, schedule adjustment, and ability for using Computer Aided Dispatch (CAD) software to increase operational efficiency.

Fleet Replacement

Includes replacing the existing fleet per Table 7-7 so that the MCPT can continue to provide reliable transit service with lower maintenance costs (see Table 7-7).

Administration and Operations Center

This facility would serve as the main office for the MCPT agency and include office space for approximately 20 employees so that all of the administrative and operational functions for providing public transit service in Martin County could be managed from a single location. The administration and operations center would be located on County property and would not require the resources for purchasing the right of away.

Fleet Parking and Wash Station

Includes providing a fenced parking facility and a wash station for MCPT buses. Initially, such a facility could be large enough to accommodate 20 buses and should have the ability for potential expansion in the future. The fleet parking and wash station facility would be constructed on County property. Therefore, the cost associated with land assembly and right of way would not be borne by the agency.

7.2 TRANSIT RIDERSHIP FORECASTING

Transit ridership forecasting, also known as transit demand estimation, is a critical component of the TDP development. The demand estimates provide a measure of public transit needs and guide the development of future transit services.

The ridership forecasts also support the estimation of operating cost requirements and vehicle and facility needs which determine the capital costs of future transit projects. Section 341.052 of the Florida Statue requires that the



estimation of a community’s demand for transit use either the planning tools provided by the Florida Department of Transportation (FDOT) or techniques approved by FDOT with supporting land use and transportation data. The Martin County fixed route transit ridership projections for the six alternatives described in Section 7.1 were prepared using the FDOT approved Transit Boardings Estimation and Simulation Tool, also known as the TBEST software.

TBEST is a transit ridership forecasting model developed and maintained by the Public Transit Office (PTO) of FDOT. TBEST estimates ridership at the stop level based on socioeconomic characteristics and transit system attributes. Population characteristics include age, gender, race and ethnicity, household size, income, and auto ownership. Employment variables include service employment, industrial employment, and commercial employment. The

transit system is represented by vehicle technology, route alignment, route connectivity, boarding and transfer fares, headways, and travel time.

Conduct Model Runs for Future Scenarios

As described in Section 7.1, six different alternatives were developed to improve and enhance transit service in Martin County. Six corresponding scenarios were also developed in the TBEST model to reflect the proposed changes in frequency, service span, and the new routes. The validated TBEST model with a 2013 base year was applied with the growth factors and changes in the transit system. *Technical Memorandum 2: Plan Recommendations, June 2014* includes a detailed explanation of the calibration and validation methodology as well as the methodology used to establish future growth rates. Table 7-8 summarizes the projected daily ridership for the proposed alternatives.

Table 7-8: Daily Ridership for the Proposed Alternatives – Year 2023

Route	Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Indiantown Route	64	91	64	66	64/26	64
Stuart Route	18	31	20	24	18/26	19
Treasure Coast Connector (TCC)	88	139	91	98	88/151	89
Hutchinson Island Route	-	-	-	-	-	116
Palm City Route	-	-	-	-	-	230
Treasure Coast Express (TCX)	-	-	-	-	-	7

7.3 EVALUATION METHODOLOGY

The six alternatives described in Section 7.1 were evaluated against 24 different objectives corresponding to 32 performance measures relative to the Martin County Transit Development Plan’s goals. Appendix A-1 provides a full matrix correlating the goals, objectives, and performance measures along with the raw data for each alternative.

The evaluation includes both a qualitative and a quantitative assessment, as appropriate, for a given performance measure. Both the qualitative and quantitative assessments use a three-tiered scoring system based on a range of values for the data of a given measure. For performance measures that use quantitative data, a three-tiered scoring system was developed using quartiles, where scores ranged from “1” to

“3”, with “3” being the best or the highest score, and “1” the worst or lowest score.

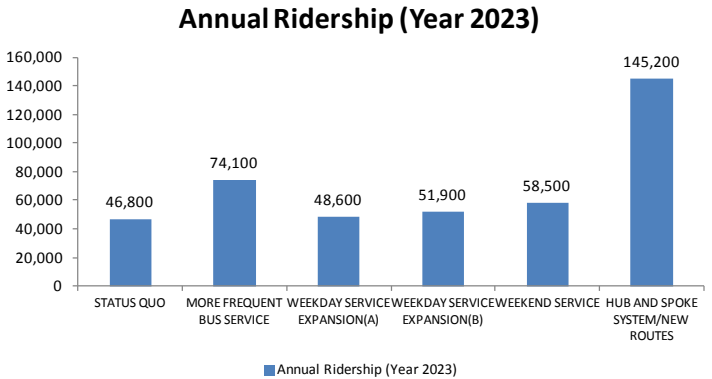
The qualitative assessment for various performance measures was based on input received from the *Project Steering Committee* and the *Martin MPO Committees*. For performance measures that use qualitative data, the lower quartile (less than 25 percentile) received a score of “1” and upper quartile (more than 85 percentile) received a score of “3”, while those between the lower and upper quartile received a score of “2”. Note that the highest and lowest values are relative to each measure. For instance, in the case of operating cost per passenger and annual operating cost, the scoring was inversely proportional to

the values for the data. Therefore, the scoring was adjusted to maintain consistency (i.e., higher scores reflected better performance). The compilation of the performance measure results, including data valuations, and scoring, can be found in Table Appendix A-2. *Technical Memorandum 2: Plan Recommendations, June 2014* provides detailed calculations of the scores for each performance measure.

Figures 7-2, 7-3, 7-4, 7-5, and 7-6 provide a comparative assessment of alternatives to key performance measures relative to the *Transit Ridership Goal* and the *Transit Service Efficiency and Effectiveness Goal*.

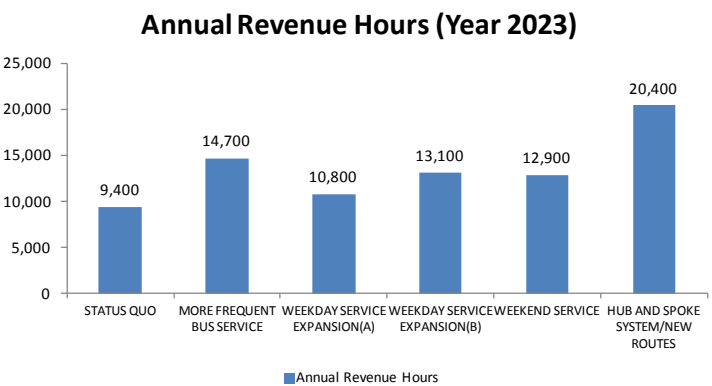
Under the Hub and Spoke System/New Routes alternative, transit ridership increases by 210 percent and by 58 percent for the More Frequent Bus Service alternative compared to Status Quo alternative (see Figure 7-2).

Figure 7-2: Annual Ridership, Year 2023



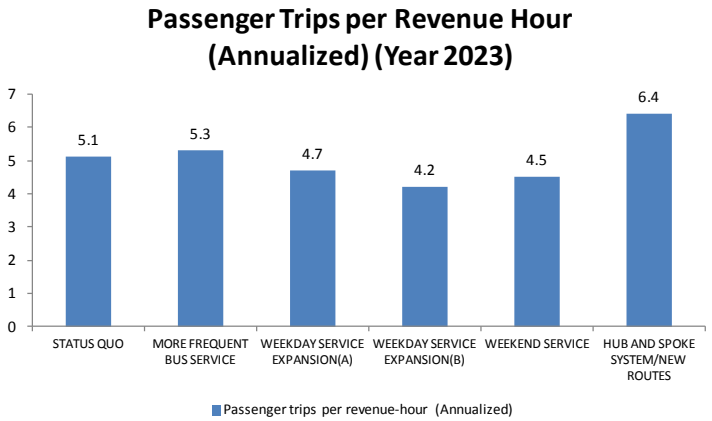
The Hub and Spoke System/New Routes alternative represents the highest increase in annual revenue hours (117 percent) compared to the Status Quo alternative followed by the More Frequent Bus Service alternative (56 percent) (see Figure 7-3).

Figure 7-3: Annual Revenue Hours, Year 2023



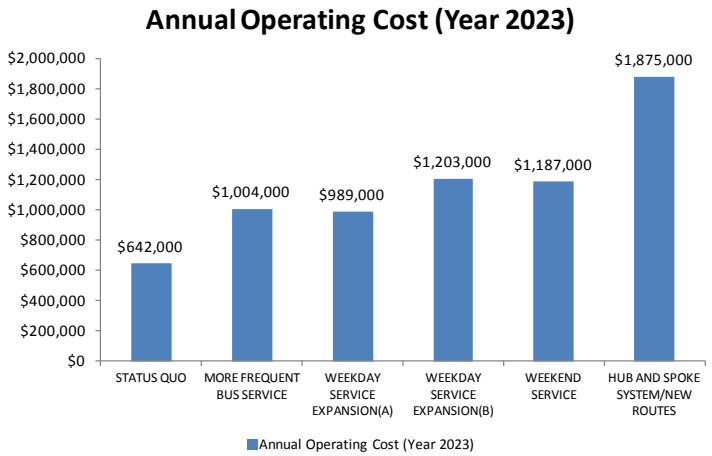
From a productivity standpoint, the Hub and Spoke System/New Routes alternative outperforms all of the other alternatives. Its productivity is 25 percent higher compared to the Status Quo alternative. Besides the Hub and Spoke System/New Routes alternative, the only other alternative that performs better than the Status Quo alternative is the More Frequent Bus Service alternative with four (4) percent higher productivity (see Figure 7-4).

Figure 7-4: Passenger Trips per Revenue Hour, Year 2023



As expected, the annual operating cost increase is in the same proportion as the revenue hours. The Hub and Spoke System/New Routes alternative is the most expensive alternative to operate followed by the Weekday Service Expansion (B) alternative (see Figure 7-5).

Figure 7-5: Annual Operating Cost, Year 2023







As shown in Figure 7.6, the top two performing alternatives from an operating cost per passenger trip perspective are the Hub and Spoke System/New Routes and the More Frequent Bus Service alternatives.

Comparing ridership and operating cost associated with various alternatives, the Hub and Spoke System/New Routes and More Frequent Bus Service alternatives turn out to be the most desirable alternatives (see Figure 7-7).

Figure 7-6: Operating Cost per Passenger Trip, Year 2023

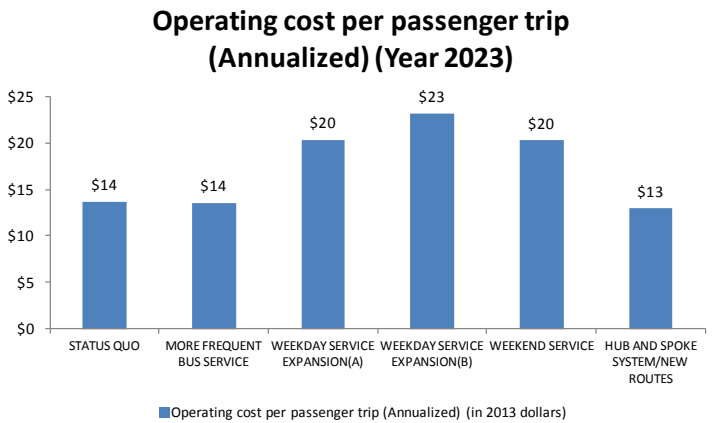
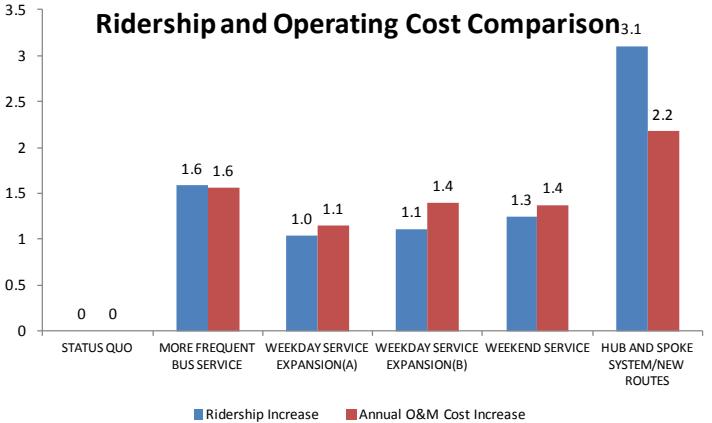


Figure 7-7: Ridership and Operating Cost Comparison



## 7.4 EVALUATION RESULTS AND KEY FINDINGS

Final scores were derived by adding scores for each performance measure relative to the set of objectives corresponding to each goal. Since each of the TDP goals are distinct, equally important, and have the different number of performance measures associated with them, adding up scores corresponding to the different goals to determine the overall performance was not considered appropriate. Table 7-9 presents the final scoring for the six alternatives corresponding to the TDP goals.

A summary of the evaluation results follow:

- » Overall, the Hub and Spoke System/New Routes alternative outperforms all of the other alternatives for all of the goals. The alternative performed equally with the More Frequent Bus Service and Weekend Service alternatives with regard to the *Branding, Marketing, and Public Awareness Goal* due to extensive geographic coverage resulting from additional routes which yields higher ridership, and 87-day/week service which increases exposure.

- » In aggregate terms, the More Frequent Bus Service alternative follows the Hub and Spoke System/New Routes alternative in terms of the *Transit Service Efficiency and Effectiveness Goal*
- » All of the alternatives perform more or less equally on the *Branding, Marketing and Public Awareness Goal* and *Intergovernmental Coordination Goal* based on the assumption that after a program of projects is adopted per this major update of the TDP, the MCPT would allocate resources to maximize benefits realized from a branding and marketing campaign as well as continue to coordinate with all of the partner agencies.

Based on the alternatives evaluation, it is evident that the Hub and Spoke System/New Routes and More Frequent Bus Service alternatives are the top two performing alternatives. This evaluation was instrumental in developing the capital and service improvement plan and perform financial analysis, which is described in Chapter 8.

Table 7-9: Evaluation Results

Goals	Alternatives					
	Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Transit Service Quality Goal	14	17	15	15	16	20
Transit Service Efficiency and Effectiveness Goal	16	17	16	15	13	18
Transit Ridership Goal	9	10	9	9	10	14
Branding, Marketing and Public Awareness Goal	5	7	6	6	7	7
Intergovernmental Coordination Goal	7	10	10	10	10	11

Note: A higher scores indicates better performance relative to the TDP goal.





# Chapter Eight

## Financial Analysis

The alternatives evaluation indicated that the Hub and Spoke System/New Routes and More Frequent Bus Service alternatives were the top two performing alternatives. These alternatives served as the foundation for identifying an initial capital and service improvement plan and for conducting financial analysis for the different scenarios. This chapter describes the capital and service improvement plan, fleet replacement plan, and the financial analysis scenarios.

### 8.1 CAPITAL AND SERVICE IMPROVEMENTS

#### Capital Improvements

All of the systemwide capital improvement needs identified in Section 7.1.1 and the top performing alternatives - the Hub and Spoke System/New Routes and More Frequent Bus Service, were considered as part of the capital improvement plan. Capital cost for the different elements were estimated using a combination of the following references: *Characteristics of Bus Rapid Transit System, Federal Transit Administration, July 2009*; Martin County’s

recent experience installing bus shelters in Indiantown; transit corridor studies conducted by FDOT, District Four as well as industry standards. Table 8-1 summarizes the capital improvement plan elements and associated costs. The total cost for the capital improvements in 2013 dollars is approximately \$12.5 million. The *Technical Memorandum 2: Plan Recommendations, June 2014* includes a capital cost worksheet, including assumptions used in estimating capital improvement plan elements cost.

Table 8-1: Ten-Year Capital Improvement Plan, 2014-2023

Description	Quantity	Cost (2013 dollars)
Bus stop improvements (shelters and ADA upgrades, new shelters, & bike racks)	45	\$1,140,000
Marketing plan and branding	1	\$92,300
Transit pass holder program	6 Kiosks	\$168,600
Park and ride lots (expansion (1) and new (4))	136 Spaces	\$992,800
Bus acquisition (fleet replacement and new buses)	15 Buses	\$5,247,100
Bus equipment upgrade (AVL, APC, E-reader, WIFI)	5 Buses	\$117,500
Administration and operations center	5300 sq. ft.	\$1,584,000
Fleet parking and wash station	20 Buses	\$2,706,000
Fixed route scheduling software (includes hardware and CAD interface)	Systemwide	\$405,200
APC software (includes interface to AVL)	Systemwide	\$95,700
Total		\$12,549,200

Note: Administration and operations center; fleet parking and wash station facilities and park and ride lots are assumed to be co-located on County property and do not include land cost.

Table 8-2: Fleet Replacement Plan

Purchase Year	Model	2013 Vehicles	Replacement Vehicle Years									
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2010	Champion 31' Bus	2	2	R								
2011	Chevy 26' Bus	2	2	2	R							
2012	Chevy 26' Bus	1	1	1	1	R						
2013	Chevy 26' Bus	2	2	2	2	2	R					
2015	Replacement 30' Bus Diesel			2	2	2	2	2	2	2	2	2
2016	Replacement 30' Bus Diesel				2	2	2	2	2	2	2	2
2017	Replacement 30' Bus Diesel					1	1	1	1	1	1	1
2018	Replacement 30' Bus Diesel						2	2	2	2	2	2
2019	-							Lifespan of 30' bus is 12 years or 500,000 miles				
2020	-											
2021	-											
2022	-											
2023	-											
Total		7	7	7	7	7	7	7	7	7	7	7

#### Fleet Replacement Plan

The Martin County Public Transit (MCPT) currently utilizes cutaways that typically have a seven (7) year life span. The agency’s goals are to replace vehicles every five (5) years as stated in Section 7.1.1. Further, MCPT is planning to acquire larger 30-foot buses that have a lifespan of 12 years or 500,000 miles. Based on this information, the fleet replacement plan shown in Table 8-2 was created. This fleet replacement plan was used to prepare the implementation plan for different scenarios and financial analysis discussed

in Section 8.2.

#### Service Improvements

Based on the transit needs identified through the public outreach activities, technical analysis, alternatives evaluation and performance assessment results, and in conjunction with the direction provided by the project steering committee, the service improvements shown in Table 8-3 were considered for implementation over the ten-year plan period. Operating costs were derived from Transit Boarding Estimation Simulation Tool (TBEST).

Table 8-3: Service Improvements

Description	Net New Daily Revenue Hours	Net New Vehicles Required	Annual Operating Cost (2013 dollars)
Continue to maintain and operate existing bus service	0	0	\$478,400
Increase frequency on Indiantown route (45 minute headway)	4	1	\$162,800
Increase frequency on Treasure Coast Connector (TCC) (30 minute headway)	8	1	\$335,300
Increase frequency on Stuart route (80 minute headway)	8	1	\$249,300
New regional bus service - Treasure Coast Express (TCX) (90 minute headway)	9	1	\$125,200
New cross-town Palm City bus route to serve the residents and business (30 minute headway)	16	2	\$212,700
New Hutchinson Island bus route to serve the beaches and key tourist destinations (45 minute headway)	17	2	\$221,800

Note: Annual operating cost does not include an additional 48 percent operating cost for complementary ADA service corresponding to the fixed route transit service.



## 8.2 CAPITAL AND OPERATING COSTS

### 8.2.1 Revenue Projections

The funding for transit services in Martin County mainly comes from the State and FTA grants. Martin County provides the required matching funds using the County’s General Fund. The funding covers both fixed-route services and Demand Response (DR) services. According to the FY2012 and FY2013 National Transit Database (NTD) reports for Martin County, the revenues received for fixed route services account for approximately 52% of the total revenues. The federal grants make up the largest share with

more than 40% of the revenues; the State Block Grants contribute about 20% of the revenues; and the County General Fund supplies the remaining 30% of the revenues.

The FY2012 and FY2013 revenues are used as a starting point for developing the ten-year revenue projections. These projections take into consideration capital and operating revenues from local, state, and federal sources as well as passenger fares. The Adopted Martin County Budget for FY2014, the Martin County FY2015 Transportation Improvement Plan (TIP), and the FDOT’s 2015 State

Transportation Improvement Plan (STIP) were referenced when developing the revenue projections. The staff from the Martin County and the Martin County MPO provided valuable guidance and input throughout the process. Below is a summary of the revenue projections from the local, state, and federal sources. Detailed revenue forecasting methodology and projections is available in the *Technical Memorandum 2: Plan Recommendations, June 2014*.

Table 8-4 summarizes the projected local revenues. The local revenues cover both the fixed bus services and the Demand Response Services. The revenues are presented in the Year-of-Expenditure (YOE) dollars. The inflation rate for revenues is assumed to be zero considering the typical difficulty associated with raising additional revenues for an increasing budget.

At the state level, the District Dedicated Revenue (DDR) and State Public Transportation Office (DPTO) of the State Block Grants will be the main sources of funding for transit services. For FY 2015 to 2019, the same funding levels as included in the Martin County TIP are used for the TDP update. For FY2020 to FY2023, it is assumed that there will be a one-percent (1%) annual increase from the 2019 level for the DPTO Grants; the DDR Grants will remain the same for the same time period. Table 8-5 shows the project revenues from the state grants for the next ten years.

At the federal level, Martin County is expected to receive approximately \$719,000 (operating assistance) for Section 5307 fund in FY2014 and could potentially obtain the same level of funding support with sufficient local matching fund. Section 5339 is a new program under MAP-21, the

Table 8-4: Projected Local Revenues for FY2014-FY2023

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
<b>Funding for Transit (from Martin County General Fund)<sup>1</sup></b>	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	\$483,260	<b>\$4,832,600</b>
Operating Revenue	\$251,295	\$251,295	\$251,295	\$240,295	\$251,295	\$251,295	\$251,295	\$251,295	\$240,295	\$251,295	<b>\$2,490,951</b>
Capital Revenue	\$0	\$0	\$0	\$11,000	\$0	\$0	\$0	\$0	\$11,000	\$0	<b>\$22,000</b>
<b>Farebox Revenue</b>	\$52,377	\$54,109	\$55,899	\$57,748	\$59,658	\$61,631	\$63,669	\$65,775	\$67,950	\$70,197	<b>\$609,013</b>
<b>Total Operating Revenue</b>	\$483,260	\$483,260	\$483,260	\$472,260	\$483,260	\$483,260	\$483,260	\$483,260	\$472,260	\$483,260	<b>\$4,810,599</b>
<b>Total Capital Revenue</b>	\$0	\$0	\$0	\$11,000	\$0	\$0	\$0	\$0	\$11,000	\$0	<b>\$22,000</b>

Note: Revenue in year of expenditure (YOE) dollars.  
1. Martin County Administration

Table 8-5: Projected State Revenues for FY2014-FY2023

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
<b>State Block Grant (DDR)</b>	\$75,000	\$76,613	\$76,849	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	<b>\$753,462</b>
<b>State Block Grant (State PTO)<sup>2</sup></b>	\$250,952	\$253,224	\$258,903	\$260,632	\$267,370	\$276,197	\$278,959	\$281,749	\$284,566	\$287,412	<b>\$2,699,963</b>
<b>FDOT Transit Service Grant<sup>3</sup></b>		\$296,000	\$299,000	\$302,000	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$897,000</b>

Note: Revenue in year of expenditure (YOE) dollars.  
2. Source: Martin County Transportation Improvement Plan. SPTO funds after 2019 are estimated assuming an annual increase of one-percent.

Table 8-6: Projected Federal Revenues for FY 2014-FY 2023

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
<b>Section 5307 (Urban) (Operating)<sup>4</sup></b>	\$372,000	\$266,411	\$251,000	\$241,000	\$251,000	\$251,000	\$251,000	\$251,000	\$241,000	\$251,000	<b>\$2,626,411</b>
<i>Remaining 5307 Operating Fund</i>	<i>\$346,000</i>	<i>\$452,589</i>	<i>\$468,000</i>	<i>\$478,000</i>	<i>\$468,000</i>	<i>\$468,000</i>	<i>\$468,000</i>	<i>\$468,000</i>	<i>\$478,000</i>	<i>\$468,000</i>	<b><i>\$4,562,589</i></b>
<b>Section 5307 (Urban) (Capital)<sup>4</sup></b>	\$229,794	\$487,450	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	<b>\$2,557,244</b>
<b>Section 5311 (Non Urban) (Operating)</b>	\$107,467	\$111,502	\$110,897	\$116,234	\$121,832	\$127,704	\$127,704	\$127,704	\$127,704	\$127,704	<b>\$1,206,452</b>
<b>Section 5339 (Capital only)<sup>5</sup></b>	\$97,545	\$78,000	\$78,000	\$97,600	\$97,600	\$97,600	\$0	\$0	\$0	\$0	<b>\$546,345</b>

Note: Revenue in year of expenditure (YOE) dollars.  
4. Martin County Administration and Martin County TIP  
5. Section 5339 is a new program under MAP-21. It is designed for agencies that operate/expand transit services mostly in rural areas. In 2014, FTA allocated \$294,940 to Port. St. Lucie Urbanized Area that includes urban areas in both Martin and St. Lucie counties. Given the population of Martin County urban area with the UZA is 122,503 out of 376,047. Martin County will be able to secure 1/3 of the 5339 fund.



Moving Ahead for Progress in the 21st Century Act (P.L. 112-141). It is designed for agencies that operate and expand transit services. In 2014, FTA allocated \$294,940 to Port. St. Lucie Urbanized Area (UZA) that includes urban areas in both Martin and St. Lucie counties based on the information provided in FTA FY2014 Apportionment

Table 12: FY 2014 Section 5339 Bus and Bus Facilities Formula Apportionments. According to Census 2010, the population of the Martin County urban area within the UZA is 122,503, and the total population of the Port. St. Lucie UZA is 376,047. Assuming that Martin County will be able to secure its share of 33%, the County will receive

Figure 8-1: Current Trend Scenario, Operating Budget

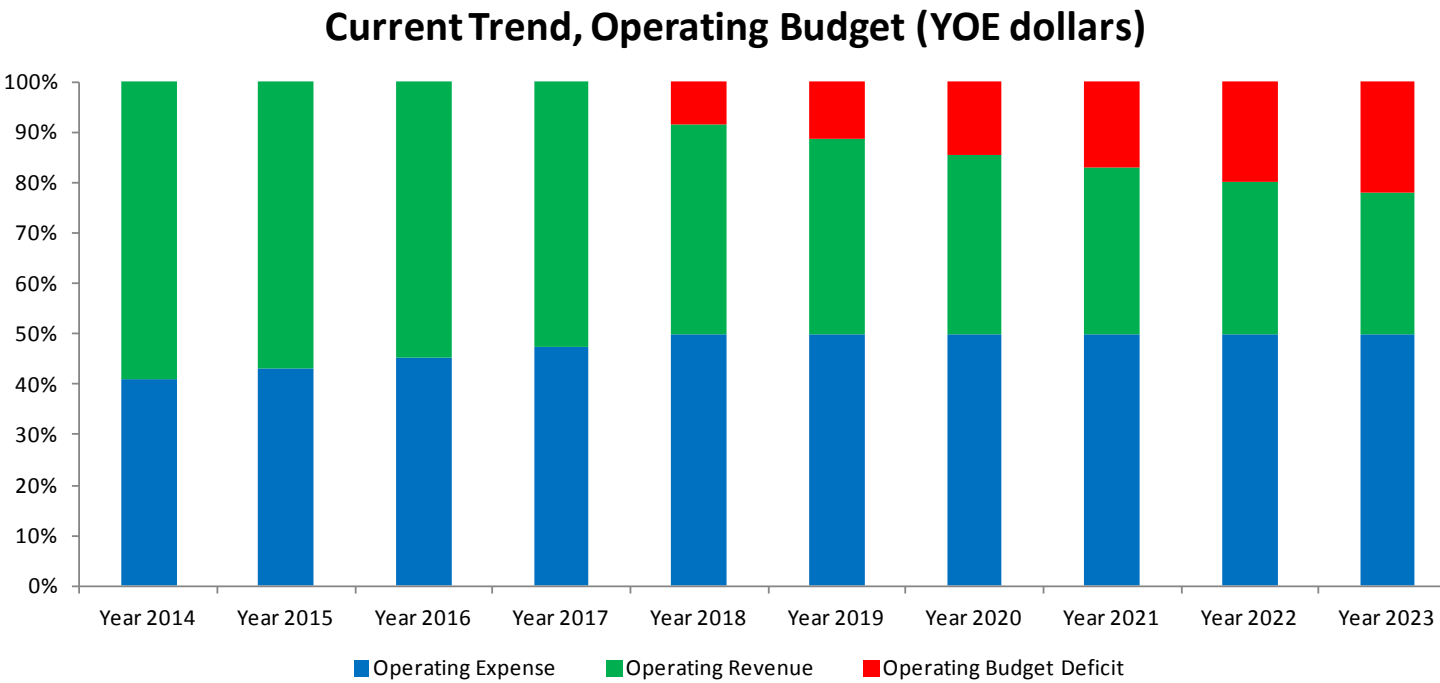
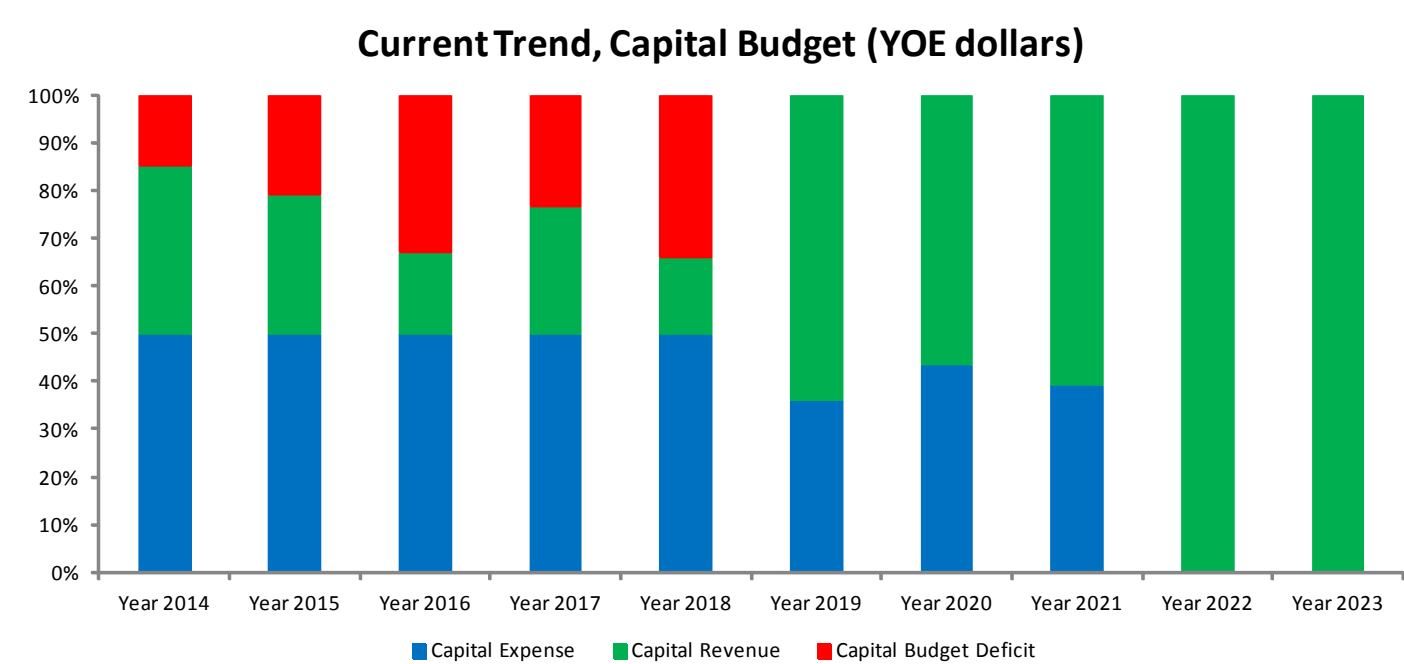


Figure 8-2: Current Trend Scenario, Capital Budget



\$97,545 Section 5339 funds in 2014. The County is expected to receive slightly lower level of 5339 funds in the next two years (FY 2015 and FY 2016) but it will come back to the same level for the following three Years (FY2017 to FY2019). Table 8-6 presents the projected revenues from the Federal Grants for the next ten years.

In summary, total capital revenue available from local, state, and federal sources is approximately \$3,127,000, and total operating revenue is approximately \$13,625,000, respectively over the 10-year plan period.

8.2.2 Financial Analysis Scenarios

Three scenarios - **Current Trend Scenario**, **Alternative Scenario**, and **Aggressive Scenario**, were created for developing the financial analysis in order to understand the capital and operating budget implications, as well as to identify alternative funding options to meet any budget shortfalls or deficits; and to help advance a more realistic implementation plan for capital and service improvements over the next 10 years. A description of the scenarios and a summary of the financial analysis follow. The detailed implementation plan for the three scenarios and corresponding financial analysis is included in the *Technical Memorandum 2: Plan Recommendations, June 2014*.

Current Trend Scenario

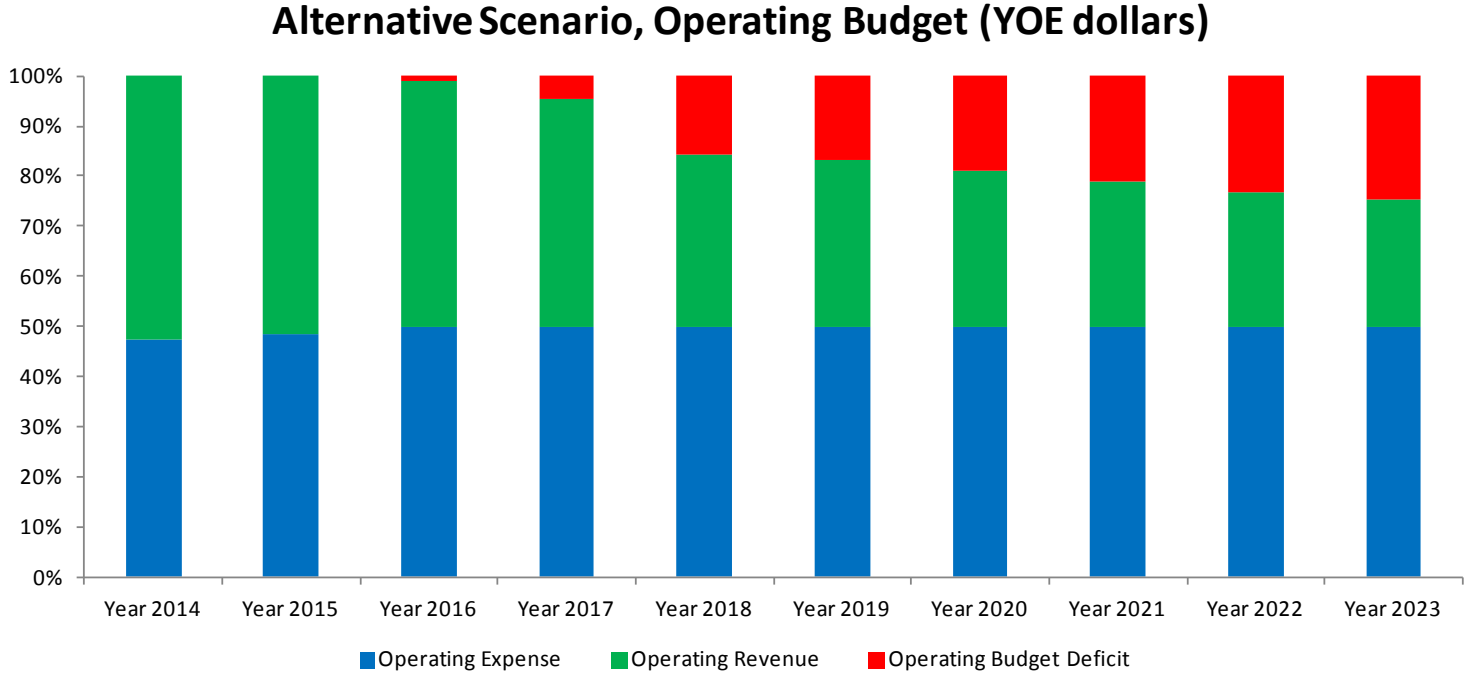
This scenario assumes that the existing funding level from local, state, and federal sources will continue in to the future. With respect to capital improvements, low cost capital projects such as bus stop improvements, marketing plan and branding, existing park and ride lot expansion, transit pass holder program, and fleet replacement would be implemented over the 10-year plan period from 2014-2015. The MCPT would continue to operate the existing fixed route transit service ‘as is,’ and implement the new (Treasure Coast Express (TCX) regional route.

When comparing the projected revenues with the projected expenditures, it is clear that Martin County will not have enough revenues to cover the costs of providing the fixed-route services at the current level. As shown in Figures 8-1 and 8-2, the County will run a deficit in each of the next ten years. The total capital shortfall with be over \$1.4 million (YOE dollars), and the cumulative operating deficit will be close to \$2.5 million (YOE dollars) over the 10-year plan period.

Alternative Scenario

This scenario assumes that additional financial local contributions will be needed either in the form of an increased share of transit funding, new dedicated funding

Figure 8-3: Alternative Scenario, Operating Budget







source or some combination of both in the future to implement the capital and service improvement plan. In addition to the capital improvements included in the Current Trend Scenario; capital projects, such as, construction of three new park and ride lots, bus equipment upgrade, administration and operations center, fleet parking and wash station, fixed route scheduling software,

APC software, and acquisition of new buses would be implemented over the 10-year plan period from 2014-2015. From the standpoint of service improvements, headways for all of the existing fixed route bus service would be reduced (or bus frequency increased) per the More Frequent Bus Service scenario. In addition, the TCX regional bus route would also continue to operate.

Figure 8-4: Alternative Scenario, Capital Budget

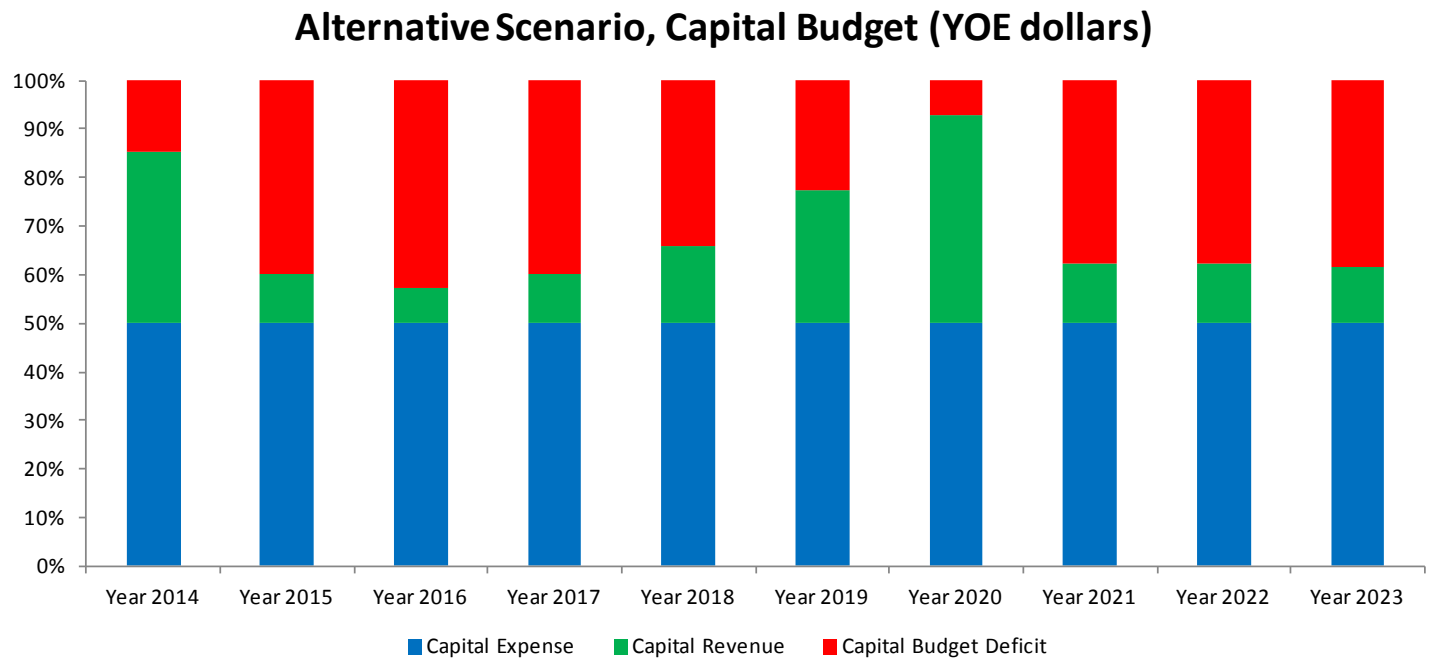


Figure 8-5: Aggressive Scenario, Operating Budget

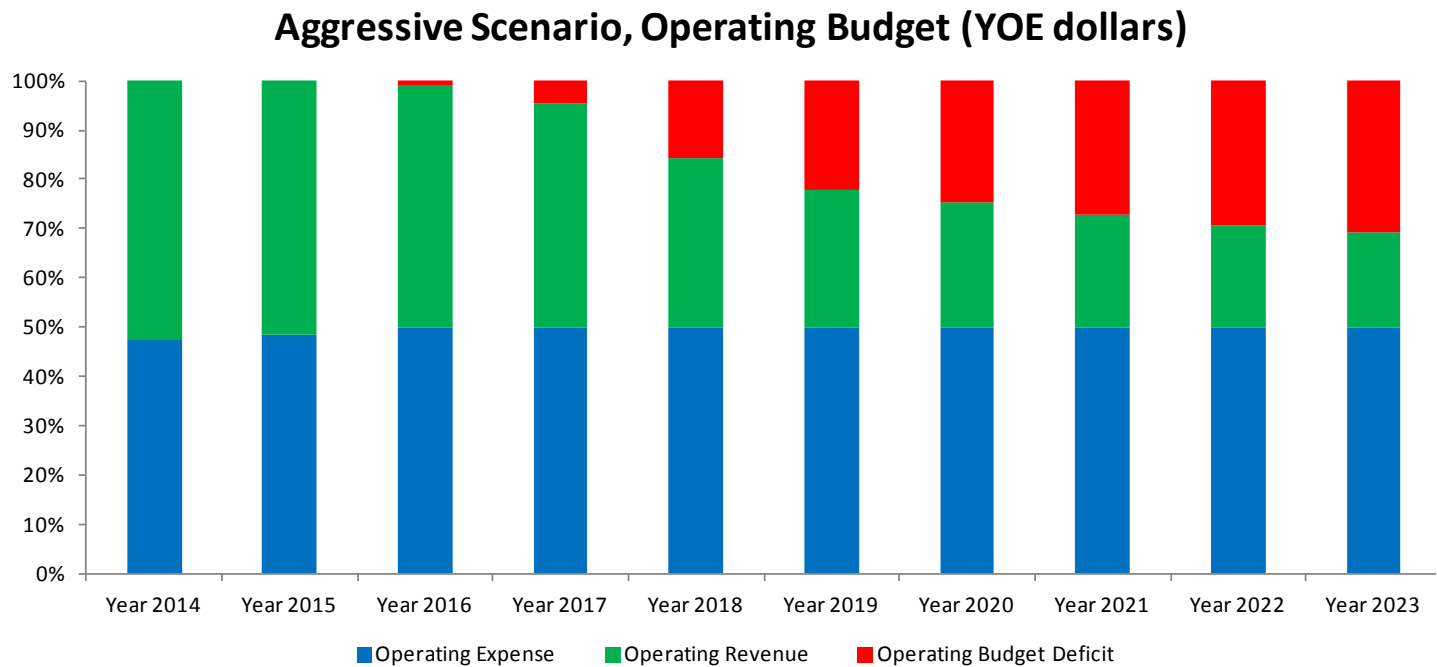
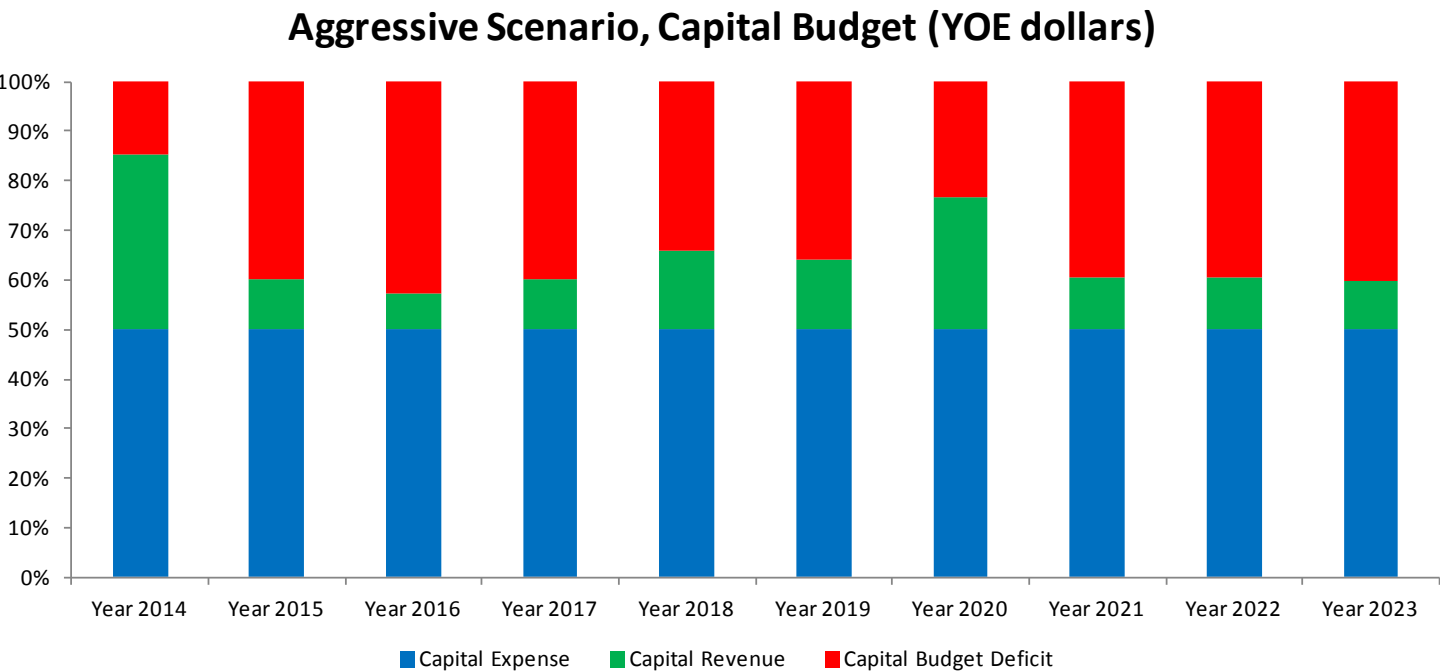


Figure 8-6: Aggressive Scenario, Capital Budget



As expected, the County will run a deficit in each of the next ten years (Figures 8-3 and 8-4). The total capital shortfall will be approximately \$11.1 million, and the accumulative operating deficit will be close to \$5.4 million (YOE dollars).

Aggressive Scenario

This scenario assumes that a significant additional financial local contribution would be provided either in the form of increased share of transit funding, new dedicated funding source or some combination of both in the future to implement the capital and service improvement plan. All of the capital improvements included in the Alternative Scenario to be implemented over the 10-year plan period from 2014-2015 are part of the Aggressive Scenario. In addition to the service improvements included in the Alternative Scenario, this scenario would provide two new

bus routes – Palm City and Hutchinson Island routes. The Aggressive Scenario is a combination of the More Frequent Bus Service alternative and the Hub and Spoke System/New Routes alternative.

As anticipated, the County will run a deficit in each of the next ten years (Figures 8-5 and 8-6). The total capital shortfall will be approximately \$9.9 million (YOE dollars), and the accumulative operating deficit will be close to \$9.5 million (YOE dollars) over the 10-year plan period.

Summary

Below is a summary of the capital and operating budget required to fully implement any of the three scenarios (see Table 8-7).

Table 8-7: Capital and Operating Budget, Year 2014-2023 (YOE dollars)

Budget	Current Trend Scenario	Alternative Scenario	Aggressive Scenario
Operating Revenue	\$13.6 M	\$ 13.9 M	\$ 14.7 M
Operating Expense	\$ 16.1 M	\$ 19.3 M	\$ 24.2 M
Operating Budget Deficit	(\$ 2.5 M)	(\$ 5.4 M)	(\$ 9.5 M)
Capital Revenue	\$ 3.1 M	\$ 3.1 M	\$ 3.1 M
Capital Expense	\$ 4.5 M	\$ 11.8 M	\$ 13.0 M
Capital Budget Deficit	(\$ 1.4 M )	(\$ 8.7 M)	(\$ 9.9 M)



8.2.3 Investment in Public Transportation

In order to sustain the transit services, the County will need to have stable funding sources and operate on a balanced budget. It is anticipated that the federal and state formula grant programs will remain at the current level over the next ten years, so the County will need to explore the possibilities to increase funding from local sources. For example, capital projects can be funded through TIF districts, bonds, or local sale tax. State funds (SIB), flexible funding sources can also be identified through the Long Range Transportation Plan (LRTP). The County can also raise the transit funding level from the current actual level of 0.40 percent to 0.60 percent as stated in the adopted budget.

However, as shown in the alternative scenario analysis, much more revenues will be required to improve and enhance the current transit services as planned by the County. One option that can be considered is to establish a countywide Municipal Service Tax Unit (MSTU) for transit. This way, the county will have a dedicated source of funding for transit. The county will have control on how to allocate the funding to capital or operating programs. It can even persuade the affected municipalities to participate, and the millages will not be counted against the Ad Valorem millage cap of 10 mills set by the State.

The following sections summarize the options that the County has in order to operate the existing transit services and implement the service changes as discussed earlier. In all cases, it is assumed that the Martin County will be able to balance the budget within ten years.

8.2.4 Alternative Funding Options

The Martin County General Fund is one of the key local funding sources for transit services. The General Fund comes from countywide Ad Valorem taxes. In 2013, the total Ad Valorem taxes amounted to \$92,328,596. Investment in transit was \$362,629, with \$349,864 spent on Operating and \$12,765 on Capital programs. In other words, Martin County spent 0.4% of its General Fund on public transportation, with 96% on Operating and 4% on Capital.

According to the Adopted Martin County Budget for FY2014, the Ad Valorem millage rate for General Fund will be 5.8668 mills, and the Ad Valorem taxes are expected to reach \$95,737,514. On March 7, 2014, the Ad Valorem

Estimating Conference of the Florida Department of Economic and Demographic Research published its five-year annual projections for Ad Valorem taxes. For Martin County, the year-to-year increases in Ad Valorem taxes are expected to reach 2.5%, 4.1%, 4.4%, 4.0%, and 3.5%, respectively for the next five years. The projections are based on population growth and changes in property values. The taxable values are usually expressed on a per-capita basis to better describe the total taxable value for an area.

The following sections summarize the possible options to raise the local funding level through either increasing spending on transit from the General Fund or establishing a dedicated MSTU for transit.

Current Trend Scenario

In order to fund the projected capital and operating costs for the Current Trend Scenario and operate the transit services on a balanced budget, it is assumed that the County will increase the spending on transit from General Fund by 45% starting from Year 2015, or an additional \$218,000 per year. The exception will be Year 2017 where an additional \$195,000 will be needed.

Detailed financial plan and revenue projections the Current Trend Scenario and year-to-year running balance is available in the Technical Memorandum 2: Plan Recommendations, June 2014. It is worth noting that the projected FTA Section 5307 fund could increase when the local fund also increases because of the matching requirements.

Alternative Scenario

The financial plan for the Alternative Scenario assumes that the County will increase the funding for transit by 45% from the current projected level. In addition, the County will establish the dedicated MSTU for transit starting in 2015. The MSTU millage will be set at 0.0462 mills. The detailed local and federal revenue projections as well as year-to-year running balance and financial plan are included in the Technical Memorandum 2: Plan Recommendations, June 2014 for the Alternative Scenario.

Aggressive Scenario

The financial plan for the Aggressive Scenario makes the same assumption that the County will increase the funding for transit by 45% from the current projected level. The MSTU millage will increase to 0.0736. The detailed local and federal revenue projections as well as year-to-year running balance and financial plan are included in the Technical Memorandum 2: Plan Recommendations, June 2014 for the Aggressive Scenario.

Summary

Table 8-8 shows the adjustments needed from the existing local revenue sources as well as the proposed countywide MSTU, which would be a new dedicated funding source for transit. Implementing the Current Trend Scenario requires a 45 percent increase in the transit funding share from the general fund. To implement the Alternative Scenario, a countywide MSTU starting in year 2015 with millage set at 0.462 mills is needed; while the Aggressive Scenario requires an additional 59 percent increase (or 0.0736 mills) from this new funding source.

Table 8-8: Alternative Funding Options to meet Capital and Operating Budget Deficit, Year 2014-2023

Revenue Source	Existing	Current Trend Scenario	Alternative Scenario	Aggressive Scenario
Local (Capital and Operating Funds)				
Transit funding share	0.40%	0.58%	0.58%	0.58%
Millage rate	5.8668	-	-	-
Proposed countywide MSTU	-	-	0.0462	0.0736
Potential Sources for Capital Funds				
Local	-	-	TIFF Districts <sup>1</sup> , Bonds, Sales Tax	
State	-	-	State Infrastructure Bank (SIB), FDOT Flex Funds	
Federal	-	-	-	-

1. Local TIFF district funds can be used for transit operations as well.



# Chapter Nine

## Plan Recommendations

This chapter outlines a capital and operating program for the Martin County Public Transit (MCPT) agency over the next 10 years per Florida Department of Transportation (FDOT) requirements for a TDP Update, and includes capital and operating revenues and expenses along with unfunded improvements.

Table 9-1: Martin County Public Transit Capital Program, 2014-2023

Capital Expense	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Funding Source(s)
<b>Bus Stop Improvements</b>	<b>\$58,000</b>			<b>\$197,000</b>	<b>\$108,000</b>	<b>\$83,000</b>	<b>\$72,000</b>				
ADA upgrades				\$169,000	\$23,000	\$24,000	\$12,000				FTA Section 5307; Local Funds
Bus Shelters	\$27,000			\$28,000	\$85,000	\$59,000	\$60,000				FTA Section 5339; FTA Section 5307; Local Funds
Bike Racks	\$31,000										FTA Section 5307; Local Funds
<b>Marketing Plan &amp; Branding</b>		<b>\$48,000</b>	<b>\$49,000</b>								
Market Plan (logo, design, and strategy)		\$48,000									Local Funds*
Bus - Paint Logo			\$11,000								Local Funds*
Shelters			\$21,000								Local Funds*
Posters (500)			\$4,000								Local Funds*
Route Cards (250 for 3 routes)			\$1,000								Local Funds*
System Map (5,000 copies)			\$5,000								Local Funds*
Media Promotions			\$7,000								Local Funds*
<b>Bus Acquisition</b>	<b>\$407,000</b>	<b>\$920,000</b>	<b>\$865,000</b>	<b>\$445,000</b>	<b>\$917,000</b>						
Fleet Replacement	\$407,000	\$420,000	\$865,000	\$445,000	\$917,000						FTA Section 5307; Local Funds
New Buses - Service Expansion		\$500,000									FTA Section 5307; Local Funds
<b>Transit Pass Holder Program</b>						<b>\$101,000</b>	<b>\$104,000</b>				
Electronic Kiosks						\$101,000	\$104,000				FTA Section 5307; Local Funds*
<b>Park and Ride Lots</b>								<b>\$148,000</b>			<b>FTA Section 5307; Local Funds</b>
Expansion of Existing PNR Lot(s)								\$148,000			
<b>Total Capital Expenditure (YOE dollars)</b>	<b>\$465,000</b>	<b>\$968,000</b>	<b>\$914,000</b>	<b>\$642,000</b>	<b>\$1,025,000</b>	<b>\$184,000</b>	<b>\$176,000</b>	<b>\$148,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,522,000</b>
<b>Capital Revenue</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Total Funding Over 10-year Plan Period</b>
Local (capital)	\$0	\$0	\$0	\$11,000	\$0	\$0	\$0	\$0	\$11,000	\$0	\$22,000
FTA Section 5307 (capital)	\$230,000	\$487,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$230,000	\$2,557,000
FTA Section 5339 (capital only)	\$98,000	\$78,000	\$78,000	\$98,000	\$98,000	\$98,000	\$0	\$0	\$0	\$0	\$548,000
<b>Total Capital Revenue (YOE dollars)</b>	<b>\$465,000</b>	<b>\$968,000</b>	<b>\$914,000</b>	<b>\$642,000</b>	<b>\$1,025,000</b>	<b>\$184,000</b>	<b>\$176,000</b>	<b>\$148,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,127,000</b>
<b>Budget Surplus or (Deficit) (YOE dollars)</b>	<b>(\$137,000)</b>	<b>(\$403,000)</b>	<b>(\$606,000)</b>	<b>(\$303,000)</b>	<b>(\$697,000)</b>	<b>\$144,000</b>	<b>\$54,000</b>	<b>\$82,000</b>	<b>\$241,000</b>	<b>\$230,000</b>	<b>(\$1,395,000)</b>

\*Unidentified

### 9.1 CAPITAL AND OPERATING PROGRAM

Tables 9-1 and 9-2 outline MCPT’s capital and operating program over the next 10-years. The capital plan includes the following:

- » **Bus Stop Improvements** – Providing shelters, ADA upgrades, and installing bike racks at those bus stops with relatively high ridership activity.
- » **Marketing Plan and Branding** – A document outlining the overall marketing strategy and identifying specific activities to implement the marketing plan and develop a brand for MCPT’s fixed route bus service. Specific items for branding include making the system map more reader friendly, route cards with an intuitive schedule, posters/flyers targeted at niche transit markets, bus logo design, and media promotions or public service announcements (PSAs).
- » **Transit Pass Holder Program** – Installing electronic kiosks in select public buildings throughout Martin County for dispensing daily or monthly passes.
- » **Park and Ride Lot** – Expansion of the existing Martin Highway and Turnpike Mile Post 133 Park-and-Ride lot.
- » Unfunded capital needs include funds for the marketing and branding effort, electronic kiosks while purchasing buses over the next five years is partially funded.





The operating program includes continuing to operate the existing fixed route bus service and to implement a new regional bus route – Treasure Coast Express (TCX) to provide a transit connection to Palm Beach County. The service improvements are fully funded through the Year 2017. There is an operating budget deficit starting in Year 2018 when FDOT’s Transit Service Grant funding ceases (see Table 9-.2).

Over the 10-year plan period, the MCPT has an approximately \$1.4 million capital budget deficit and about a \$2.5million operating budget deficit.

**Table 9-2: Martin County Public Transit Operating Program, 2014-2023**

Operating Expense	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Funding Source(s)
Continue Existing Service - Indiantown Route	\$111,000	\$115,000	\$118,000	\$122,000	\$125,000	\$129,000	\$133,000	\$137,000	\$141,000	\$145,000	FTA Section 5311; Local Funds
Continue Existing Service - Treasure Coast Connector (TCC)	\$237,000	\$244,000	\$252,000	\$259,000	\$267,000	\$275,000	\$283,000	\$292,000	\$301,000	\$310,000	FTA Section 5307; Local Funds; State Block Grant Program
Continue Existing Service - Stuart Route (including route re-alignment)	\$144,000	\$149,000	\$153,000	\$158,000	\$162,000	\$167,000	\$172,000	\$177,000	\$183,000	\$188,000	FTA Section 5307; Local Funds; State Block Grant Program
Implement New Regional Bus Service - Treasure Coast Express (TCX)		\$133,000	\$136,000	\$141,000	\$145,000	\$149,000	\$154,000	\$158,000	\$163,000	\$168,000	FDOT Transit Service Development Program; Local Funds*
Complementary ADA Service	\$350,000	\$430,000	\$516,000	\$611,000	\$714,000	\$826,000	\$947,000	\$1,079,000	\$1,221,000	\$1,376,000	
Administrative Cost	\$90,000	\$95,000	\$98,000	\$101,000	\$104,000	\$107,000	\$111,000	\$114,000	\$117,000	\$121,000	
<b>Total Operating Expense (YOE dollars)</b>	<b>\$932,000</b>	<b>\$1,166,000</b>	<b>\$1,273,000</b>	<b>\$1,392,000</b>	<b>\$1,517,000</b>	<b>\$1,653,000</b>	<b>\$1,800,000</b>	<b>\$1,957,000</b>	<b>\$2,126,000</b>	<b>\$2,308,000</b>	<b>\$16,124,000</b>
Operating Revenue	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Funding Source(s)
O&M Revenue (Local)	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	\$483,000	Local Funds
Farebox Revenue (Local)	\$52,000	\$54,000	\$56,000	\$58,000	\$60,000	\$62,000	\$64,000	\$66,000	\$68,000	\$70,000	Local Funds
State Block Grant	\$326,000	\$330,000	\$259,000	\$261,000	\$267,000	\$276,000	\$279,000	\$282,000	\$285,000	\$287,000	State Funds
FTA Section 5307 (O&M)	\$372,000	\$266,000	\$251,000	\$241,000	\$251,000	\$251,000	\$251,000	\$251,000	\$241,000	\$251,000	Federal Funds
FTA Section 5311 (O&M)	\$107,000	\$112,000	\$111,000	\$116,000	\$122,000	\$128,000	\$128,000	\$128,000	\$128,000	\$128,000	Federal Funds
State Block Grant DDR	\$0	\$0	\$77,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	State Funds
FDOT Transit Service Grant Program	\$0	\$296,000	\$299,000	\$302,000	\$0	\$0	\$0	\$0	\$0	\$0	O&M monies provide for the first three years of transit service
<b>Total Operating Revenue (YOE dollars)</b>	<b>\$1,340,000</b>	<b>\$1,541,000</b>	<b>\$1,536,000</b>	<b>\$1,536,000</b>	<b>\$1,258,000</b>	<b>\$1,275,000</b>	<b>\$1,280,000</b>	<b>\$1,285,000</b>	<b>\$1,280,000</b>	<b>\$1,294,000</b>	<b>\$13,625,000</b>
<b>Budget Surplus or (Deficit) (YOE dollars)</b>	<b>\$408,000</b>	<b>\$375,000</b>	<b>\$263,000</b>	<b>\$144,000</b>	<b>(\$259,000)</b>	<b>(\$378,000)</b>	<b>(\$520,000)</b>	<b>(\$672,000)</b>	<b>(\$846,000)</b>	<b>(\$1,014,000)</b>	<b>(\$2,499,000)</b>

\*Unidentified



## 9.2 LONG TERM IMPROVEMENTS

Given the reported financial constraints, several capital and service improvement projects that are needed to enhance the public transportation system in Martin County could not be programmed within the 10-year plan period. It is recommended that the capital and service improvement projects identified in Tables 9-3 and 9-4 be considered as long term improvements that could be prioritized and included if funding becomes available in the future years.

Table 9-3: Long Term Capital Improvements

Project Description	Unit	Unit Cost (in 2013 Dollars)	Quantity	Total Cost (in 2013 Dollars)
<b>Bus Stop Improvements</b>				
Bus Shelters(for new routes)	EA	\$26,000	25	\$650,000
<b>Bus Acquisition</b>				
Fleet Replacement	EA	\$396,000	3	\$1,188,000
New Buses - Service Expansion	EA	\$396,000	5	\$1,980,000
<b>Park and Ride Lots</b>				
New PNR Lot(s)	Per Space	\$7,300	120	\$876,000
<b>Bus Equipment Improvements</b>				
Automatic Vehicle Location (AVL)	EA	\$2,500	5	\$12,500
Automatic Passenger Counters (APC)	EA	\$4,800	5	\$24,000
Automated Passenger Announcement System	EA	\$6,800	5	\$34,000
E-card Reader (Fare Collection)	EA	\$7,900	5	\$39,500
WIFI	EA	\$1,500	5	\$7,500
<b>Administration &amp; Operations Center</b>				
Administration/Operations Office Building	SF	\$300	5,280	\$1,584,000
Fleet Parking and Wash Station	EA	\$135,000	20	\$2,700,000
Fixed Route Scheduling Software	LS	\$405,000	1	\$405,000
APC Software	LS	\$96,000	1	\$96,000
			<b>Total</b>	<b>\$9,596,500</b>

Note: Administration and operations center; fleet parking and wash station facilities and park and ride lots are assumed to be co-located on County property and do not include land cost.

Table 9-4: Long Term Service Improvements

Service Improvement	Headway (in minutes)		Net New Daily Revenue Hours	Net New Vehicle Requirement	Total Annual Revenue Hours	Operating Cost per Revenue Hour (2013 dollars)	Annual Operating Cost1 (2013 dollars)	Capital Cost per Vehicle (2013 dollars)	Total Capital Cost (2013 dollars)
	Base Year 2013	Future Year							
Increase frequency on Indiantown route	60	45	4	1	3,200	\$50.88	\$162,800	\$396,000	\$396,000
Increase frequency on Treasure Coast Connector (TCC)	60	30	8	1	6,590	\$50.88	\$335,300	\$396,000	\$396,000
Increase frequency on Stuart route	120	80	8	1	4,900	\$50.88	\$249,300	\$396,000	\$396,000
Continue to operate new regional bus service - Treasure Coast Express (TCX)	-	90	9	1	2,460	\$50.88	\$125,200	\$396,000	\$396,000
New cross-town Palm City bus route to serve the residents and business	-	30	16	2	4,180	\$50.88	\$212,700	\$396,000	\$792,000
New Hutchinson Island bus route to serve the beaches and key tourist destinations	-	45	17	2	4,360	\$50.88	\$221,800	\$396,000	\$792,000

Additional 48 percent operating cost for complementary ADA service corresponding to the fixed route transit service is not included in the annual operating cost indicated in the table.



» Appendix A

Appendix A-1: Evaluation of Alternatives – Raw Data

Goals		Objectives	Performance Measures	Alternatives					
				Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Transit Service Quality Goal	Develop a high quality public transportation service to move people within Martin County and the Treasure Coast region.	Provide transit connections to key destinations and areas not currently served by public transportation in Martin County	Number of activity centers served by fixed route bus system	25	25	25	25	25	42
		Develop and implement regional fixed route bus service	Number of bus routes providing one-seat ride to St. Lucie and/or Palm Beach Counties	1	1	1	1	1	2
		Increase span of service during weekdays and provide transit service on weekends (Saturday and Sunday)	Weekday revenue-hours - Annualized (Year 2023)	9,400	14,700	10,800	13,100	9,400	20,400
			Weekend revenue-hours - Annualized (Year 2023)	0	0	0	0	3,500	0
		Increase bus frequency to meet rider needs	Revenue-hours per capita within 1/2 mile radius of bus stops	0.3	0.5	0.3	0.4	0.4	0.4
		Provide bus shelters and amenities (bike racks, benches, trash receptacle) including ADA upgrades	Number of bus stops identified for upgrades	7	7	7	7	7	7
		Provide sidewalk and bicycle facilities for customers to access transit services	Total miles of bike/ped improvements within 1/2 mile of bus stops	48	48	48	48	48	85
		Create a transit pass holder program	Transit pass holder program status	Plan	Plan	Plan	Plan	Plan	Plan
Transit Service Efficiency and Effectiveness Goal	Focus on improving the efficiency and effectiveness of transit services provided by Martin County Public Transit (MPCT).	Improve ridership productivity (effectiveness) and cost efficiency of the transit system	Annual Ridership (Year 2023)	46,800	74,100	48,600	51,900	58,500	145,200
			Passenger trips per revenue-hour (Annualized)	5.1	5.3	4.7	4.2	4.5	6.4
			Passenger trips per revenue-mile (Annualized)	0.4	0.4	0.4	0.3	0.3	0.4
			Operating cost per passenger trip (Annualized) (in 2023 dollars)	\$13.7	\$13.5	\$20.3	\$23.2	\$20.3	\$12.9
			Annual Operating Cost (Year 2023) (in 2023 dollars)	\$642,000	\$1,004,000	\$736,000	\$895,000	\$883,000	\$1,395,000
		Upgrade software for scheduling transit service and fare collection	Purchase software and design an implementation plan	Identified	Identified	Identified	Identified	Identified	Identified
		Continue to implement the fleet replacement plan and acquire larger buses as well as equipment upgrades (e-cards, passenger counters, WIFI, automated announcement system)	Status of fleet replacement schedule and availability of funds	Need Identified	Need Identified	Need Identified	Need Identified	Need Identified	Need Identified
		Identify a site to serve as a transit facility for fleet parking and bus wash station	Site selection status	Planning	Planning	Planning	Planning	Planning	Planning
		Develop transit service efficiency and effectiveness standards to monitor systemwide and route level performance	Implementation plan and monitoring schedule	In transition	In transition	In transition	In transition	In transition	In transition





## Appendix A-1: Evaluation of Alternatives – Raw Data (Continued)

Goals		Objectives	Performance Measures	Alternatives					
				Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Transit Ridership Goal	Increase ridership levels by capturing traditional and new transportation markets.	Continue to serve the traditional transit market and increase the ridership levels to keep ridership growth rate higher than the population growth rate over 10-year plan period	Differential between transit ridership growth and population growth rate (Annualized)	2.0%	6.9%	2.4%	3.1%	4.4%	14.4%
		Promote transit use through direct marketing to area residents and employers	Availability of real time information on transit schedule and arrival time via internet, cell phones and other devices	Available	Available	Available	Available	Available	Available
		Capture choice riders, tourists, and students to increase transit ridership to the extent possible	Number of jobs within 1/2 mile of bus stops	45,265	45,265	45,265	45,265	45,265	64,710
			Number of key tourist destinations served by fixed bus routes	6	6	6	6	6	8
			Number of middle and high schools within 1/2 mile of bus stops	10	10	10	10	10	15
Branding, Marketing and Public Awareness Goal	To create a brand for Martin County Public Transit that is distinct and recognizable by existing and potential customers.	Develop a Marketing Plan including “branding” for Martin County Public Transit (MCPT) for marketing public transportation services to existing and potential customers	Development status of marketing plan	Planning Stage	Planning Stage	Planning Stage	Planning Stage	Planning Stage	Planning Stage
		Conduct targeted marketing efforts for high-potential groups – including tourists, elderly, students, low income, disabled, and transit-dependent residents	Total exposure from targeted joint marketing efforts with visitors bureau, hotels/resorts, health care facilities, schools, and so on	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation
		Conduct outreach efforts to ensure that all area residents are aware of area transit services	Total exposure from various outreach activities including job fairs, public service announcement (PSA), website hits, providing transit information along with utility bills, and so on	1994	1994	1994	1994	1994	1994
		To explore opportunities for raising additional revenue those are complementary to branding efforts	Potential revenue generated through advertisements on bus shelters and buses	Low	High	Medium	Medium	High	High
Intergovernmental Coordination Goal	Continue building strong partnerships with community and private sector entities as well as transportation agencies in the region.	Conduct coordinated public outreach efforts to existing riders and potential transit system users in the Treasure Coast region	Number of events of regional significance and/or total exposure	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation	To be conducted during plan implementation
		Monitor regional and intergovernmental coordination activities	Number of meeting with County, transit agency, Community Transit Coordinator (CTC), and transportation agencies serving the Treasure Coast Region conducted throughout the year including major accomplishments	5	5	5	5	5	5
		Support policies and agreements that encourage development and expansion of regional transit service	Level of local support for regional transit projects	Policy	Policy	Policy	Policy	Policy	Policy
		Continue to utilize transportation demand management (TDM) strategies and provide transit services that have synergy with South Florida Commuter Services program	Number of new and/or expanded park and ride lots in Martin County	0	4	4	4	4	4
			Number of park and ride lots served by fixed route bus service in Martin County	3	4	4	4	4	6
		Help support and advance local jurisdictions’ transit supportive land use policies	Develop population and job density thresholds and coordinate with local jurisdictions to design unconventional mechanisms to provide transit service including micro transit	Develop Density Thresholds	Develop Density Thresholds	Develop Density Thresholds	Develop Density Thresholds	Develop Density Thresholds	Develop Density Thresholds



## Appendix A-2: Evaluation of Alternatives – Comparative Performance Analysis (Scores)

Goals		Objectives	Performance Measures	Alternatives					
				Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Transit Service Quality Goal	Develop a high quality public transportation service to move people within Martin County and the Treasure Coast region.	Provide transit connections to key destinations and areas not currently served by public transportation in Martin County	Number of activity centers served by fixed route bus system	2	2	2	2	2	3
		Develop and implement regional fixed route bus service	Number of bus routes providing one-seat ride to St. Lucie and/or Palm Beach Counties	2	2	2	2	2	3
		Increase span of service during weekdays and provide transit service on weekends (Saturday and Sunday)	Weekday revenue-hours - Annualized (Year 2023)	1	2	2	2	1	3
			Weekend revenue-hours - Annualized (Year 2023)	2	2	2	2	3	2
		Increase bus frequency to meet rider needs	Revenue-hours per capita within 1/2 mile radius of bus stops	1	3	1	1	2	2
		Provide bus shelters and amenities (bike racks, benches, trash receptacle) including ADA upgrades	Number of bus stops identified for upgrades	3	3	3	3	3	3
		Provide sidewalk and bicycle facilities for customers to access transit services	Total miles of bike/ped improvements within 1/2 mile of bus stops	2	2	2	2	2	3
		Create a transit pass holder program	Transit pass holder program status	1	1	1	1	1	1
Transit Service Efficiency and Effectiveness Goal	Focus on improving the efficiency and effectiveness of transit services provided by Martin County Public Transit (MPCT).	Improve ridership productivity (effectiveness) and cost efficiency of the transit system	Annual Ridership (Year 2023)	46,800	74,100	48,600	51,900	58,500	145,200
			Passenger trips per revenue-hour (Annualized)	5.1	5.3	4.7	4.2	4.5	6.4
			Passenger trips per revenue-mile (Annualized)	0.4	0.4	0.4	0.3	0.3	0.4
			Operating cost per passenger trip (Annualized) (in 2023 dollars)	\$13.7	\$13.5	\$20.3	\$23.2	\$20.3	\$12.9
			Annual Operating Cost (Year 2023) (in 2023 dollars)	\$642,000	\$1,004,000	\$736,000	\$895,000	\$883,000	\$1,395,000
		Upgrade software for scheduling transit service and fare collection	Purchase software and design an implementation plan	Identified	Identified	Identified	Identified	Identified	Identified
		Continue to implement the fleet replacement plan and acquire larger buses as well as equipment upgrades (e-cards, passenger counters, WIFI, automated announcement system)	Status of fleet replacement schedule and availability of funds	Need Identified	Need Identified	Need Identified	Need Identified	Need Identified	Need Identified
		Identify a site to serve as a transit facility for fleet parking and bus wash station	Site selection status	Planning	Planning	Planning	Planning	Planning	Planning
		Develop transit service efficiency and effectiveness standards to monitor systemwide and route level performance	Implementation plan and monitoring schedule	In transition	In transition	In transition	In transition	In transition	In transition
Transit Ridership Goal	Increase ridership levels by capturing traditional and new transportation markets.	Continue to serve the traditional transit market and increase the ridership levels to keep ridership growth rate higher than the population growth rate over 10-year plan period	Differential between transit ridership growth and population growth rate (Annualized)	2.0%	6.9%	2.4%	3.1%	4.4%	14.4%
		Promote transit use through direct marketing to area residents and employers	Availability of real time information on transit schedule and arrival time via internet, cell phones and other devices	Available	Available	Available	Available	Available	Available
		Capture choice riders, tourists, and students to increase transit ridership to the extent possible	Number of jobs within 1/2 mile of bus stops	45,265	45,265	45,265	45,265	45,265	64,710
			Number of key tourist destinations served by fixed bus routes	6	6	6	6	6	8
			Number of middle and high schools within 1/2 mile of bus stops	10	10	10	10	10	15



Appendix A-2: Evaluation of Alternatives – Comparative Performance Analysis (Scores) (Continued)

Goals		Objectives	Performance Measures	Alternatives					
				Status Quo	More Frequent Bus Service	Weekday Service Expansion (A)	Weekday Service Expansion (B)	Weekend Service	Hub and Spoke System/New Routes
Branding, Marketing and Public Awareness Goal	To create a brand for Martin County Public Transit that is distinct and recognizable by existing and potential customers.	Develop a Marketing Plan including “branding” for Martin County Public Transit (MCPT) for marketing public transportation services to existing and potential customers	Development status of marketing plan	1	1	1	1	1	1
		Conduct targeted marketing efforts for high-potential groups – including tourists, elderly, students, low income, disabled, and transit-dependent residents	Total exposure from targeted joint marketing efforts with visitors bureau, hotels/resorts, health care facilities, schools, and so on	-na-	-na-	-na-	-na-	-na-	-na-
		Conduct outreach efforts to ensure that all area residents are aware of area transit services	Total exposure from various outreach activities including job fairs, public service announcement (PSA), website hits, providing transit information along with utility bills, and so on	3	3	3	3	3	3
			Potential revenue generated through advertisements on bus shelters and buses	1	3	2	2	3	3
Intergovernmental Coordination Goal	Continue building strong partnerships with community and private sector entities as well as transportation agencies in the region.	Conduct coordinated public outreach efforts to existing riders and potential transit system users in the Treasure Coast region	Number of events of regional significance and/or total exposure	-na-	-na-	-na-	-na-	-na-	-na-
		Monitor regional and intergovernmental coordination activities	Number of meeting with County, transit agency, Community Transit Coordinator (CTC), and transportation agencies serving the Treasure Coast Region conducted throughout the year including major accomplishments	3	3	3	3	3	3
		Support policies and agreements that encourage development and expansion of regional transit service	Level of local support for regional transit projects	1	1	1	1	1	1
		Continue to utilize transportation demand management (TDM) strategies and provide transit services that have synergy with South Florida Commuter Services program	Number of new and/or expanded park and ride lots in Martin County	1	3	3	3	3	3
			Number of park and ride lots served by fixed route bus service in Martin County	1	2	2	2	2	3
		Help support and advance local jurisdictions’ transit supportive land use policies	Develop population and job density thresholds and coordinate with local jurisdictions to design unconventional mechanisms to provide transit service including micro transit	1	1	1	1	1	1



